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OM nucleic - nucleic search, using sw model
                                                                    GenCore version 4.5
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Title: Perfect score: Scoring table: Sequence: US-09-709-170A-17 June 28, 2002, 22:40:21; Search time 1381.16 Seconds (without alignments) 22.376 Million cell updates/sec 1736436 seqs, 858457221 residues IDENTITY\_NUC
Gapop 10.0 , Gapext 1.0 1 totoccagogtgcgccat 18

Run on:

Total number of hits satisfying chosen parameters: 1996432

Minimum DB seq length: 0 Maximum DB seq length: 75 Post-processing: Minimum Match 100%

Database : N\_Geneseq\_032802:\* Listing first 45 summaries

. / SIDS1/gcgdata/geneseq/geneseqn - emb1/NA1990.DAT: \*
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/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1982.DAT:\*

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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18 18 18 18 18 18 18 18	Score
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AAV52545 AAV52545 AAV27719 AAV28181 AAV19667 AAX31944 AAZ81905 AAZ41905 AAZ41905	ID
Unmethylated CpG d Immunostimulatory Antisense oligonuc Human bcl-2 antise CpG adjuvant oligo IL-12 secretion in IL-12 secretion in HPV fusion protein	Description

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CpG oligonucleotid	p, falciparum vacc	Immunostimulatory	Anti-bol oligonucl	I + O T T T T T T T T T T T T T T T T T T	Immunoschillutacory	Tammung Cinutacory	CpG Limital atom			CpG-Contamination	Toucht all			Parasitic intecer		t	Boil Education of therap	namm-labeled oligo	Nucleotide sequenc	CpG motif for immu	Oligonucleotide us	េ	CpG immunostimulat	Human Bcl-2 antise		Bcl2 antisense seq	Immunostimulatory	Immunostimulatory	Antisense oligonuc	Target bcl-2 antis	Synthetic RNA sequ	Deletion sequence	Cytosine-guanosine	

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AAQ86659
                                                                                                                                                                                                                   AAQ86659 standard; DNA; 18 BP.
                                                                                                                                                                       Bc1-2 antisense oligonucleotide.
                                                                                                                                                                                                      AAQ86659;
                                                                                                                                                        Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy;
                                                                                                                                                  chemoresistance; ss.
                                                                                                                                                                                       27-SEP-1995 (first entry)
                                                                                                                                    Synthetic.
                                                                                                             misc_feature
                                                                  30-MAR-1995.
                                                                                WO9508350-A
       Reed JC;
                     (REED/) REED J C.
                                    20-SEP-1993;
                                                    20-SEP-1994;
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                                       93US-0124256
                                                     94WO-US10725.
                                                                                                                     Location/Qualifiers
                                                                                                 /*tag= a
/note= "3'-5' (antisense) sequence"
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В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                  Example 4; Page 35; 65pp; English.
                                                                                                                                                                                                    Use of nucleic acids containing an unmethylated CpG - for treating subject having or at risk of having an acute decrement in air flow or inhibiting an inflammatory response
                                                                                                                                                                                                                                                                                                                                                             28-FEB-1997;
                                                                                                                                                                                                                                                                                                                             (IOWA ) UNIV IOWA RES FOUND
                                                                                                                                                                                                                                                                                                                                                                                                                  03-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                      25-FEB-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                            W09837919-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            natural killer cell activation; NK cell; Th2 response; neonatal sepsis; pulmonary disorder; asthma; environmentally induced airway disease; bacterial infection; endotoxaemia; therapy; cystic fibrosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unmethylated CpG dinucleotide; immune response; bacterial meningitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unmethylated CpG dinucleotide 1758.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAV52545;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAV52545 standard; DNA; 18 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            reduction of bc11-2 expression was demonstrated using the oligonuclectide given in AAQ86659. This is antisense to the first 6 codons of the bc1-2 ORF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Reversal of chemoresistance of tumor cells by antisense mediated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 18; Page 44; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of human solid tumours, esp. breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Anti-code oligomers which bind to bcl-2 mRNA - for the treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1995-139394/18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                 Schwartz DA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          bowel disease; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                          97us-0039405
                                                                                                                                                                                                                                                                                                                                                                                 98WO-US03678.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 18; DB 100.0%; Pred. No. 6.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 18;
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CC (CONS) of the invention. The DDNs contain at least one unmethylated CPG CC (CDNs) of the invention. The DDNs contain at least one unmethylated CPG CC 5' NIXICGX2N2 3', where at least one nucleotide separates consecutive CC CPGs, XI is adenine, guanine, or thymine, X2 is cytosine or thymine, N CC N2 does not contain a CGG tetramer or more than one CCG or CGG trimer CC CONSECUTIVE CPGS, XI and X2 are selected from GPT, GPG, GPA, APT and APA, CC N3 and X4 are selected from TPT or CPT, N is any nucleotide and N1+N2 is CC CONSECUTIVE CPGS, XI and X2 are selected from GPT, GPG, GPA, APT and APA, CC 0-26 bases with the provision that N1 and N2 does not contain a CCGG The ODNS activate lymphocytes in a subject and redirect a subject's CC consecutive CPG and other cerpones from a Th2 to a Th1 (e-g. by inducing monocytic cells CC and other cells to produce Th1 cytokines, including II-12, IFN gamma and CC autoimmune diseases, in desensitisation therapy, as an artificial collaboration in a mammal such as a mouse or a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAV27719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
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                                                                                                                                                                                                                                                                             AAV27641-751 represent immunostimulatory oligodeoxyribonucleotides (ODNs) of the invention. The ODNs contain at least one unmethylated CpG
                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 49; 109pp; English.
                                                                                                                                                                                                                                                                                                                                                                         least one unmethylated CpG dinucleotide, used for tumours, infections or autoimmune disease
                                                                                                                                                                                                                                                                                                                                                                                                    New immunostimulatory nucleic acid molecules - which contain at
                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1998-272127/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kline JN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (IOWA ) UNIV IOWA RES FOUND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-OCT-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-MAY-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Th2; Th1; cytokine; treatment; prevention; asthma; autoimmune disea desensitisation therapy; artificial adjuvant; antibody generation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Immunostimulatory; oligodeoxyribonucleotide; obn; unmethylated CpG dinucleotide; activate; lymphocyte; immune response;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           W09818810-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Immunostimulatory oligodeoxyribonucleotide of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAV27719 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAV27719;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gram-positive bacterial infections or endotoxaemia including bacterial meningitis, neonatal sepsis, cystic fibrosis, inflammatory bowel disease and liver cirrhosis, Gram-negative pneumonia, Gram-negative abdominal abscess, haemorrhagic shock, disseminated intravascular coagulation, or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                      treating e.g.
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RESULT
AAV28181
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      numan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               affinity purification; antisense; bcl-2; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Purification;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Antisense oligonucleotide to bcl-2 mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAV28181;
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                                                                                                                                                   AAV28155-268 represent oligonucleotides which can be purified using the method of the invention. The specification describes a matrix that comprises a support and an affinity unit that specifically and reversibly binds a target oligonucleotide, and comprises a sequence of seases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative diseases, for treating a non-pathogen, non-hyperproliferative diseases, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9827425-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-JUN-1998
                                                                                                                                                                                                                                                                                                                              Matrix for selective separation of oligo:nucleotide - useful for, e.g. large scale purification of anti-sense agents from their deletion derivatives formed during synthesis
                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1998-362922/31.
                                                                                                                                                                                                                                                                                                                                                                                                               Chen D,
                                                                                                                                                                                                                                                                                                                                                                                                                                       (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                     Disclosure; Page 86; 183pp; English.
                                                                                                                 Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                         pathogen, retrovirus or other viruses.
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tctcccagcgtgcgccat 18
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                                                                  Similarity
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                                                     Conservative
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                                                       100.0%; Score 18; DB ...
100.0%; Pred. No. 6.8;
tive 0; Mismatches
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                                                                                  Length 18;
                                                            Indels
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                                                            0;
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                                                            Gaps
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AAV19667
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OS XXX
                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-FEB-1992;
22-DEC-1988;
24-MAR-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAV19667 standard; DNA; 18 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human bcl-2 antisense oligonucleotide 13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAV19667;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-JUN-1998
                                                                                                                                                                                                                                                                                                                                  oligonucleotides are phosphorothioate derivatives and can straddle strategic sites such as the translation initiation site, donor and acceptor splicing sites, or sites for transportation or degradation of Blocking translation at such strategic sites prevents the formation of a functional bcl-2 gene product. These oligonucleotides may be used for treating cancers associated with high levels of bcl-2 gene expression, especially lymphomas and some leukaemias.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cancer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antisense oligonucleotide; bcl-2 gene; lymphoma; leukaemia; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24-MAR-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US5734033-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Column 23; 21pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (UYPE-) UNIV PENNSYLVANIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Anti-sense oligo:nucleotide(s) complementary to BCL-2 mRNA - useful for treating cancers, e.g. lymphoma(s) and some leukaemia(s)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1998-229881/20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Reed
                                                                                                                                                                                                                                                                                                                                                                                                                           This antisense oligonucleotide is complementary to the translation initiation site of the human bcl-2 mRNA. The Bcl-2 antisense
                                                                                                                                                                                                                                                                                                              Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                   AAZ31944 standard; DNA; 18 BP
                                                                                                               AAZ31944;
 Synthetic
                      CpG adjuvant; vaccine; polyoxyethylene ether; polyoxyethylene ester; antigen; infection; allergy; cancer; therapy; ss.
                                                          CpG adjuvant oligo 1002.
                                                                                     26-JAN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            u
                                                                                                                                                                                                              1 tctcccagcgtgcgccat 18
                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                   Н
                                                                                                                                                               σ
                                                                                                                                                                                               totoccagogtgcgccat 18
                                                                                                                                                                                                                                                     18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         92US-0840716.
88US-0288692.
94US-0217082.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94US-0288692
                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                              100.0%;
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                                                                                                                                                                                                                                                                   Score 18; DB Pred. No. 6.8;
                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                  DB 19; Length 18;
                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                             Gaps
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8 X C C C C C C C C C C C X S X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X D X 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local :
                    Krieg AM,
                                                                     ( IOWA ) UNIV IOWA RES FOUND
                                                                                                                                                                                  02-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                          CpG oligonucleotide; phosphorothioate; interleukin-12; IL-12; secretion; human PBMC; immune response; cancer; HIV; bacterial disease; asthma; neoplastic disorder; jaagsiekte; B cell; NK cell; ss; cytokine; antigen presenting cell; infection; allergic disease.
                                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This sequence represents a CpG adjuvant that can be used in the vaccine composition of the invention. The vaccine comprises a polyoxyethylene ether or ester (I), not in the form of a vesicle, pharmaceutically vaccine excipient and an antigen (Ag) or antigenic composition. The or other parasites), allergy and cancer. (I) which are safe, easy to to induce and simple to administer, are powerful vaccine adjuvants, able to the mucosa. The response is at least as good as that from conventional reactogenicity and are well tolerated.
                                                                                                                                                                                                                                         14-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IL-12 secretion inducing CpG oligonucleotide 50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAZ41905 standard; DNA; 18 BP.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 9; Page 26; 52pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Vaccine to protect against infections, allergy and cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1999-620290/53.
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25-SEP-1998;
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                 Weiner G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                           98US-0080729
                                                                                                                                                                               99WO-US07335
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98GB-0020956.
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antigen specific immune response against a cancer antigen. The methods can also be used to treat neoplastic disorders in humans, including but neuroblastoma, retinoblastoma, and glioma. The methods are also useful for treating infectious diseases, e.g. viral diseases such as HIV.

CC bacterial diseases, and fungal diseases. The methods are also useful bacterial diseases, and fungal diseases. The methods may also be used to creat allergic diseases, e.g. asthma. The methods and compositions may composite to treat cancer and tumours in non human subjects.

CC eg. cats and dogs. Neoplasias affecting agricultural livestock may also be treated and include leukaemia, haemangiopericytoma and bovine ocular caused by the bacterium Corynebacterium pseudotuberculosis, and contagious lung tumour of sheep caused by jaagsiekte may also be catsed. CpG oligonucleotides can be useful in activating B cells, NK cells, and antigen presenting cells, such as monocytes and macrophages. CpG coligonucleotides enhance antibody dependent cellular cytotoxicity and contagious and admirant in continention with tumour antipartical antigen and admirant in continention with tumour antipartical antigen presenting cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         which are used in the invention to induce interleukin-12 (IL-12) secretion from human PBMC. The invention comprises stimulating an immune response in a subject comprising administering to a subject exposed to are antigen, an immunopotentiating cytokine and an immunostimulatory CpG oligonucleotide to induce a synergistic antigen specific immune response. The methods are useful for treating cancer by stimulating an
                                         protect against a tumour challenge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequences AAZ41856-Z41949 are phosphorothicate CpG oligonuclectides which are used in the invention to induce interleukin-12 (IL-12)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 8; Page 80; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel synergistic combinations of immunostimulatory oligonucleotides and immunopotentiating cytokines are useful for stimulating the immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     system
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1999-620169/53.
                                                   be used as an adjuvant in conjunction with tumour antigens to
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Matches
                                                          Query Match
          1 teteccagegtgegecat 18
1 teteccagegtgegeeat 18
                                                  Local
                                          18;
                                                Similarity
                                       Conservative
                                             100.0%; Score 18; DB 100.0%; Pred. No. 6.8;
                                     0;
                                    Mismatches
                                                      DB 20;
                                    0
                                                    Length 18;
                                  Indels
                                  0;
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Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;

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IL-12 secretion inducing CpG oligonucleotide 93.
                                                           24-JAN-2000 (first entry)
                                                                             AAZ41948 standard; DNA; 18
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03-APR-1998; (IOWA ) UNIV IOWA RES FOUND 02-APR-1999; W09951259-A2. Synthetic. human PBMC; immune response; cancer; HIV; bacterial disease; as neoplastic disorder; jaagsiekte; B cell; NK cell; ss; cytokine; 14-0CT-1999 antigen presenting cell; infection; allergic disease. CpG oligonucleotide; phosphorothioate; interleukin-12; IL-12; secretion; 98US-0080729 99WO-US07335 bacterial disease; asthma;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        treat allergic diseases, e.g. asthma. The methods and compositions may also be applied to treat cancer and tumours in non human subjects, e.g. cats and dogs. Neoplasias affecting agricultural livestock may also e.g. cats and dogs. Neoplasias affecting agricultural livestock may also be treated and include leukaemia, haemanglopericytoma and bovine ocular neoplasia. Chronic, infectious, contagious diseases of sheep and goats caused by the bacterium Corynebacterium pseudotuberculosis, and contagious lung tumour of sheep caused by jaagsiekte may also be treated. CpG oligonucleotides can be useful in activating B cells, NK treated. CpG oligonucleotides can be useful an activating B cells, NK cells, and antigen presenting cells, such as monocytes and macrophages. Cells, and antigen presenting cells, such as monocytes and cytotoxicity and cpg oligonucleotides enhance antibody dependent cellular cytotoxicity and can be useful as an administration with tumour activations.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            response in a subject comprising administering to a subject exposed to an antigen, an immunopotentiating cytokine and an immunostimulatory CpG oligonucleotide to induce a synergistic antigen specific immune response. The methods are useful for treating cancer by stimulating an response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequences AAZ41856-Z41949 are phosphorothicate CpG oligonuclectides which are used in the invention to induce interleukin-12 (IL-12) secretion from human PBMC. The invention comprises stimulating an immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel synergistic combinations of immunostimulatory oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1999-620169/53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 8; Page 88; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  system
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          not limited to: sarcoma, carcinoma, fibroma, Lymphoma, melanoma, neuroblastoma, retinoblastoma, and glioma. The methods are also useful for treating infectious diseases, e.g. viral diseases such as HIV, bacterial diseases, and fungal diseases. The methods may also be used to bacterial diseases, and fungal diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antigen specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protect against a tumour challenge
                                                                                                                                                                                                                                                                                                                  HPV fusion protein CpG oligonucleotide 2.
                                                                                                                                                                                                                                                                                                                                                            06-SEP-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                      AAX78803 standard; DNA; 18 BP
                                                                                                                                                                                                                                                                                                                                                                                                  AAX78803
                                                                                                                                                                                                                                    Fusion protein; E6 protein; E7 protein; E6/E7; immunomodulator; tumour;
immunological fusion partner; CpG oligonucleotide; immune response;
HPV antigen; prevention; treatment; primer; ss.
                                                                                                                                           WO9933868-A2
                                                                                                                                                                           Human papillomavirus
                                                                                                                                                                                                      Synthetic
                                                             18-DEC-1998;
                     24-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     immunopotentiating cytokines are useful for stimulating the immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 teteceagegtgegeeat 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 tctcccagcgtgcgccat 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        igen specific immune response against a cancer antigen also be used to treat neoplastic disorders in humans, i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               be used as an adjuvant in conjunction with tumour antigens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BP; 2 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                         97GB-0027262
                                                               98WO-EP08563.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
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Pred. No. 6.8;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           including but
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAX88537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linked to an immunological fusion partner and an immunomodulatory CpG oligonucleotide. The products of the invention can be used to induce an immune response in a patient to an HPV antigen. They can also be used for preventing or treating HPV induced tumours. This sequence represents a CpG oligonucleotide which is used in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAX78791-X78801 represent nucleic acid sequences which encode novel constructs comprising an E6 or E7 protein or E6/E7 fusion protein from HPV (represented in AAX25375-X25386). These constructs are optionally
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-405485/34.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dalemans WLJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (SMIK ) SMITHKLINE BEECHAM BIOLOGICALS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    composition comprising an induce immune response to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 11; Page 37; 62pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                               unmethylated; vaccine; immunostimulation; immune response; T-independent type 1 antigen; T-independent type 2 antigen;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Cytosine-guanosine dinucleotide motif oligonucleotide #4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAX88537 standard; DNA; 18 BP
                                                                                                                                                                                                                                                                                                                                                                                                            Cytosine-guanosine dinucleotide motif; CpG; immunomodulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-SEP-1999
                                                                                                                                                                                                                                                                                      08-JUL-1999
                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                     polysaccharide
                                                                                                                                                                                                                                                                                                                 WO9933488-A2
cytosine-guanosine dinucleotide motif (CpG) oligonucleotide and T-independent type 1 or type 2 antigens or polysaccharide conjugate antigen. The present sequence represent a specifically claimed CpG \,
                                                                                                                         A vaccine composition for inducing a immune response to
                                                                                                                                                                              Dalemans WLJ,
                                                                                                                                                                                                       (SMIK ) SMITHKLINE BEECHAM BIOLOGICALS.
                                                                                                                                                                                                                                   24-DEC-1997;
                                                                                                                                                                                                                                                             18-DEC-1998;
                                                                     Claim 6; Page 31; 35pp; English.
                                                                                                  antigen
                                                                                                          T-independent type 1 or type 2 antigen or polysaccharide conjugate
                                                                                                                                                    WPI; 1999-405369/34.
                                         The present invention describes a formulation (A) comprising a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         госат
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 teteccagegtgegeeat 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 tctcccagcgtgcgccat 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gerard CMG
                                                                                                                                                                               Laferriere CAJ,
                                                                                                                                                                                                                                                                                                                                                                       conjugate antigen; ss.
                                                                                                                                                                                                                                     97GB-0027262.
                                                                                                                                                                                                                                                               98WO-EP08562.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       E6, E7 or E6/E7 fusion protein from HPV to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                    prieels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 20;
                                                                                                                                                                                     4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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The present invention describes a composition comprising two coligonucleotide analogues, each having a binding domain and a coupling comolety, where the binding domains are capable of hybridizing to a target coupling collectide and the coupling moleties are capable of coupling to each coupling to their in the absence of a target molecule. The composition/compound is comprised antisense asite for a given mRNA or an optimal ribozyme composition compound is composition com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 11
AAX33514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DЪ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         88888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
some of the natural bases. The present sequence represents an oligonucleotide, which is used in an example from the present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Oligonucleotide analog compositions capable of coupling to form
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 9; Page 45; 71pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antisense molecules
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-264039/22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Arnold LJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (OASI-) OASIS BIOSCIENCES INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO9918238-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ribozyme;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conbinatorial antisense library; oligonucleotide analogue; RNase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BCL2-targeted antisense oligonucleotide SEQ ID NO:45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-JUL-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAX33514 standard; DNA; 18 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAX33514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               oligonucleotide. A vaccine composition comprising the formulation is used for inducing a immune response to T-independent type 1 or type 2 antigen or polysaccharide conjugate antigen. The use of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         pneumococcal polysaccharides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                immunostimulatory CpG oligonucleotide acts as an adjuvant to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 teteccagegtgegeeat 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 tctcccagcgtgcgccat 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cleavage; anchor; binding; target RNA; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Brown BD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97US-0060673.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0136080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-US20361.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Riley TA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 18;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 20; Length 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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the present invention

Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                               syncytial Virus or cytomegalovirus (CMV). The compositions enable characterization of deletion sequence oligonucleotides having related, but different nucleobase sequences, and quantification of different species of deletion sequence ("target") ollgonucleotides in a mixture. Also, if the specificity of the oligonucleotide's nucleobase sequence for its reverse complement is not modified, the method may be performed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                             proliferation, and being active against a eukaryotic pathogen, a human retrovirus, a human immunodeficiency virus (HIV), or a non-human retrovirus, including influenza virus, Epstein-Barr virus, Respiratory
                                                                                                                                                                                 oligonucleotides and their targets are represented in AAX23548-x23709 compositions that are useful for modulating cellular adhesion or
                          using oligodeoxynucleotides.
                                                                                                                                                                                                                             oligonucleotides. The compositions form a method for characterizing a sample of target deletion oligonucleotides which are labelled and hybridize with the probe oligonucleotides of the sensor arrays. Such
                                                                                                                                                                                                                                                                                 target oligonucleotide present in a mixture of target deletion sequence
                                                                                                                                                                                                                                                                                                  sensor arrays, where each array comprises a unique probe oligonuclectide, which is the reverse complement of part of a unique
                                                                                                                                                                                                                                                                                                                                This invention describes a novel composition comprising a number of
                                                                                                                                                                                                                                                                                                                                                                                                              New compositions comprising sensor arrays made up of unique probe oligonucleotides - useful for characterizing a sample of target deletion oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                       Example 9; Page 152; 163pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1999-205198/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Deletion sequence oligonucleotide; sensor array; eukaryotic pathogen; probe; cellular adhesion modulator; cellular proliferation modulator; human retrovirus; human immunodeficiency virus; non-human retrovirus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                W09911820-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Deletion sequence oligonucleotide 146.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAX23693;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAX23693 standard; DNA; 18 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 tctcccagcgtgcgccat 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 teteccagegtgegecat 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Srivatsa GS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97US-0923771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US18084.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 18; DB 100.0%; Pred. No. 6.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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Query Match

DB 20; Length 18;

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20
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AAX27536/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                             cc nucleotide sequence, particularly by machine synthesis. The groups of specified above, apart from those on silyl, are those particularly for cc specified above, apart from those on silyl, are those particularly for cc the cyanoethyl phosphoramidate coupling. Uses of the oligoribonucleotide cc products in diagnosis, therapy, and as research tools, are well known, cc and are not dealt with in detail. (II) is an intermediate for (I). The cc silyloxymethyl halide reagent is easy to prepare, and yields are high. cc simple and rapid, and the acetal bond formed does not migrate, cc simple and rapid, and the acetal bond formed does not migrate. Cc eliminating particularly the prior art problem of 2 to 3 isomerisation. Cc meethylenedioxy group spacer between the silyl group and nucleoside cring results in less steric hindrance than bulky direct silyloxy cc linkages, enabling first, a range of choices for the silyl substituents, coupling. Purer products are therefore obtained than in prior art, coupling. Purer products are therefore obtained than in prior art, be synthesised successfully, and in shorter times.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Silyloxymethyl; phosphonate; silyloxymethyl halide; diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic RNA sequence produced by the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAX27536;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAX27536 standard; RNA; 18 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-MAY-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9909044-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cyanoethyl phosphoramidate coupling; isomerisation; steric hindrance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2-Silyloxymethyl ribonucleosides and their phosphonate derivatives - have high purity, use in machine synthesis of ribonucleic acids, enable longer oligonucleotide chain construction, and larger amounts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1999-180963/15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-AUG-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (WEIS/)
                                                                                                                                                                                                                                                                                                                                                                                            and their phosphonates (I), and silyloxymethyl halides (II). (I) are intermediates for synthesis of RNA-ollgonucleotides with predetermined
                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to silyloxymethyl protected D- or L-ribonucleosides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (JENN/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 7; Page 26; 38pp; English.
                                                                                  Sequence 18 BP; 4 A; 4 C; 8 G; 2 U; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 tctcccagcgtgcgccat 18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JENNY L.
PITSCH S.
   18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WEISS P A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pitsch S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
100.0%; Score 18; DB nilarity 100.0%; Pred. No. 6.8; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97CH-0001931.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Weiss PA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                        DB 20; Length 18;
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         0;
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            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Gaps
            0;
            Gaps
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Matches Query Match

Local Similarity

Conservative

0

100.0%; 100.0%;

Score 18; DB Pred. No. 6.8; Mismatches

DB 20; Length 18;

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AAV99434 RESULT

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RESULT 14
AAX18702
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cellular adhesion protein; proliferation; antisense oligonucleotide; alimentary canal; transport; gastrointestinal mucosa; cancer; Alzheimer's disease; beta-thalassemia; malaria; viral infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Target bcl-2 antisense oligonucleotide BCL-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAX18702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAX18702 standard; DNA; 18
                                                                       deficiency virus (HIV)), inflammation, in human or animal medicine; (ii) to investigate the role of a gene or gene product in non-human animals; and (iii) to modulate gene expression in cells, tissues or organs. The compositions provide bioavailability of at least 15, preferably 17-35,8. The penetration enhancer improves: (i) transport of the nucleic acid across the mucosa of the alimentary canal and into cells; and (ii) increases stability of the nucleic acid. Oral administration avoids the complications and expense of intravenous or administration avoids the complications and expense of intravenous or other methods of administration. AAX18669 to AAX18799 and AAX18801 other methods of administration.
                                                                                                                                                                                                                                                                                                                                                                                                              Composition comprising nucleic acid and penetration enhancer - use particularly for delivering therapeutic antisense oligonucleotides across the gastrointestinal mucosa, provides high bioavailability
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W09901579-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HIV; inflammation; ss.
                                                                                                                                                                                                                                                       nucleic acid and at least one penetration enhancer. The compositions are nucleic acid and at least one penetration enhancer. The compositions are used: (i) to treat or prevent any disease or disorder that can be treated with the nucleic acid, e.g. cancer, Alzheimer's disease, beta-thalassemia, malaria, viral infections (including human immune beta-thalassemia, malaria, viral infections (including human immune)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1999-106077/09.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hardee G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-JUL-1998;
                                                                                                                                                                                                                                                                                                                                    A pharmaceutical composition has been developed which comprises a
                                                                                                                                                                                                                                                                                                                                                                        Example 2; Page 86; 115pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;
                                       acid in the method of the invention
                                                        represent antisense oligonucleotides which can be used as the nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Teng C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97US-0886829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-US13574.
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The present sequence represents an antisense oligonucleotide directed CC against the human bc12 gene. The oligonucleotide can have either CC phosphorothioate or phosphodiester bonds. The oligonucleotide is CC comprising lipid-encapsulated using the method of the invention. A composition CC e.g. antisense oligonucleotides, is prepared by mixing at least CC agent to form an intermediate mixture of lipid-encapsulated particles agent to form an intermediate mixture of lipid-encapsulated particles, CC and changing the pH of the mixture to neutralise at least some of the CC external surface charges on the particles. One lipid has a CC external surface charges on the particles. One lipid has a CC enternal surface charges on the particles. One lipid has a CC enternal surface agent with Ka such that the lipid is charged at a CC end the buffer maintains this lipid in the charged form (i.e. cationic CC second lipid prevents particle aggregation during formation of the CC lipid-therapeutic agent particles. The composition is used to introduce CC treat or prevent diseases associated with aberrant gene expression in xxx
                                                                     Matches
                                                                                                 Query Match
                                                                                                                                   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 23; 98pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Composition containing lipid-encapsulated therapeutic agent useful, e.g. for delivering antisense molecules or ribozymes or treating diseases associated with aberrant gene expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1999-045179/04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (INEX-) INEX PHARM CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-MAY-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antisense oligonucleotide; human bcl-2 gene; phosphodiester; lipid-encapsulation; tumour; treatment; inflammation; infection; ss.
                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Antisense oligonucleotide directed against human bcl-2 gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic
1 totoccagogtgcgccat 18
                  1 teteccagegtgegeeat 18
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                                                                     18;
                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cullis P, D
Scherrer P,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note= "phosphorothioate or phosphodiester bonds"
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                                                         100.0%; Score 18; DB:
100.0%; Pred. No. 6.8;
tive 0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Semple SC;
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                                                                                       DB 20;
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aberrant gene expression;
                                                                                     Length 18;
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В 20

Search completed: June 28, 2002, 22:40:21 Job time: 8097 sec

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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
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OM nucleic - nucleic search, using sw model

Run on:

June 28, 2002, 22:16:53; Search time 334.55 Seconds (without alignments)
13.216 Million cell updates/sec

Title: Perfect score:

Sequence: US-09-709-170A-17 18 1 tctcccagcgtgcgccat 18

Scoring table: IDENTITY\_NUC Gapop 10.0 , Gapext 1.0

Searched: 383533 seqs, 122816752 residues

Total number of hits satisfying chosen parameters: 590990

Minimum DB seq length: 0 Maximum DB seq length: 75

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

Issued\_Patents\_NA:\*
1: /cgn2\_6/ptodata/1/ina/5A\_COMB.seq:\*
2: /cgn2\_6/ptodata/1/ina/5B\_COMB.seq:\*
3: /cgn2\_6/ptodata/1/ina/6A\_COMB.seq:\*
4: /cgn2\_6/ptodata/1/ina/6B\_COMB.seq:\*
5: /cgn2\_6/ptodata/1/ina/PCTUS\_COMB.seq:\*
6: /cgn2\_6/ptodata/1/ina/backfiles1.seq:\*

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

Result No.	Score	% Query Match L	Length DB	ID	Description
:	18		1	US-08-217-082A-17	Sequence 17, Appl
<b>س</b> د	180	100.0	18 2	-08-465-485A-	24,
	18	•		-09-080-285-1	Sequence 17, Appl
, וע	18	•		-09-080-285-	24,
o (	18			-09-249-730-	218
7	18	100.0	18 3	18-220-	۲,
<b>&amp;</b>	18	•		-652-5	1 0
9	18			-701-2	
10	18		18 4	-286-098-5	59, App
11	18	00.	18 4	-098-1	104, Ap
12	18	100.0	18 4	-774-4	Sequence 45, Appl
13	18		18 4	-954-1	14, App
14	18	100.0		-649B-	60, App
_	18			-804-	T3, App
c 16	18	100.0	27 1	8-607-269-8	a, Appi
_	18			-259-514-1	13, App
L	18			58-311-1	L3, APP
ш	18				α,
<b>63</b>	18			-08-217-082A-	, ,
	18			8-465-485A	,
	18			0-285-2	Z, Appr
	17	94.4		US-08-217-082A-9	y, Appr
24	•	91.1		-09-030-701-4	æ
25	16.4	91.1		30-701-6	bu, App
26	16.4	91.1		US-09-286-098-72	, App
27	16.4	91.1	18 4	US-08-960-774-72	Sequence /2, Appl

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72.2	72.2	74.4	76.7 76.7 76.7 74.4	91.1 85.6 83.3
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US-09-080-285-7 US-09-379-718-1	US-08-465-485A-1 US-08-465-485A-7 US-09-080-285-1	US-08-960-774-71 US-08-217-082A-1 US-08-217-082A-7	US-08-726-136-19 US-09-103-434-19 US-09-687-594-19 US-09-030-701-40 US-09-286-098-71	US-09-109-663-72 US-08-650-726-1 US-08-217-082A-8 US-08-217-831-1 US-08-217-082A-10
Sequence 7, Appli Sequence 1, Appli	Sequence 1, Appli Sequence 7, Appli Sequence 1, Appli	<pre>sequence 71, Appl sequence 1, Appli sequence 7, Appli</pre>	Sequence 19, Appl Sequence 19, Appl Sequence 19, Appl Sequence 40, Appl Sequence 71, Appl	Sequence 72, Appli Sequence 1, Appli Sequence 8, Appli Sequence 1, Appli Sequence 10, Appl

## ALIGNMENTS

COMPUTER: FLOPPY CLEAR COMPUTER: IBM PC COMPACTIBLE COPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PATENTIAN PC-DOS/MS-DOS SOFTWARE: PATENTIAN PC-DOS/MS-DOS CURRENT APPLICATION NATA: APPLICATION NUMBER: US/08/217,082A FILLING DATE: 24-MAR-1994 CLASSIFICATION NUMBER: US 07/840,716 FILLING DATE: 21-FEB-1992 PRIOR APPLICATION NUMBER: US 07/288,692 APPLICATION NUMBER: US 07/288,692 PRIOR APPLICATION NUMBER: US 07/288,692 FILLING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION: NAME: FOITHCY, Andrew D. REFERENCE/DOCKET NUMBER: 34,600 REFERENCE/DOCKET NUMBER: 335-067-55 FWC TELEPHONE: (408) 436-2070 TELEPHONE: (408) 436-2075 INFORMATION FOR SEQ ID NO: 17: SEQUENCE CHARACTERISTICS: LENGTH: 18 base pairs TYPE: nucleic acid STRANDEDWESS: single TOPOLOGY: linear MOLECULE TYPE: other nucleic acid DESCRIPTION: Synthetic DNA US-08-217-082A-17	
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Sequence 24, Application US/08465485A
Patent No. 5831066
GENERAL INFORMATION:
                                               US-08-465-485A-24
                                                                RESULT
                                                                                                                                                                                                                                             US-08-465-485A-17
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                                                                                                                                                                   Matches
                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                               TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 17, Application US/08465485A Patent No. 5831066
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                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 0 FILING DATE: 20-SEP-1993 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/288,692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA APPLICATION NUMBER: UPFILING DATE: 05-JUN-1
                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 514
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Reed, John TITLE OF INVENTION: Regulation of bcl-2 Gene Expression NUMBER OF SEQUENCES: 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS
                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                     TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                        TYPE:
                                                                                                      1 TCTCCCAGCGTGCGCCAT 18
                                                                                                                    1 teteccagegtgegeeat 18
                                                                                                                                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Fortney, Andrew REGISTRATION NUMBER: (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OPERATING SYSTEM: PC-DOS/MS-DUS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                   LENGTH:
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1755 S. Jefferson Davis Hwy., Suite 400
                                                                                                                                                                  Conservative
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SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    UMBER: US 07/288,692
22-DEC-1988
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05-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Floppy disk
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US-09-080-285-17
; Sequence 17, Application US/09080285
; Patent No. 6040181
                                                                                                                                                                         RESULT
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                                                                                                                                                                                                                                                                                                 Matches
                                                                                 GENERAL INFORMATION: APPLICANT: Reed,
                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO:
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OPERATING SYSTEM: PC-DO
SOFTWARE: PatentIn Rele
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/
FILING DATE: 05-JUN-199
              CORRESPONDENCE ADDRESS:
ADDRESSEE: OBLON, SP
                                               TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: Other nucleic acid; DESCRIPTION: Synthetic DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION: NAME: Fortney, Andrew D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILLING PARTICATION DATA:
PRIOR APPLICATION NUMBER: US 07/840,716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
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PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Reed, John
TITLE OF INVENTION: Regulation of bcl-2 Gene Expression
NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
ADDRESSEE: P.C.
                                                                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: Last two internuc OTHER INFORMATION: phosphorothioates
                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION:
                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY: Modified_base LOCATION: 16..17
                                                                                                                                                                                                                         1 TCTCCCAGCGTGCGCCAT 18
                                                                                                                                                                                                                                           1 tctcccagcgtgcgccat 18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 07 FILING DATE: 21-FEB-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 0: FILING DATE: 20-SEP-1993
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ZIP: 22202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Arlington
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                                                                                                                                                                                                                                                                                                 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nucleic acid
DEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18 base pairs
                                                                                  Reed, John
                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               E: P.C.
1755 S. Jefferson Davis Hwy., Suite 400
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         OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PatentIn Release #1.0, Version #1.25
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SYSTEM: PC-DOS/MS-DOS
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05-JUN-1995
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                                               Regulation of bcl-2 Gene Expression 29
                                                                                                                                                                                                                                                                                                          100.0%; Score 18; DB
100.0%; Pred. No. 1.4;
                                                                                                                                                                                                                                                                                                                                                                                                             Last two internucleoside linkages are
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COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk

COUNTRY: STATE: Virginia

Arlington

1755 S.

Jefferson Davis Hwy., Suite 400

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US-09-080-285-17
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Patent No. 604018
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 34,600
REFERENCE, DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2075
TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 17:
                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
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FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
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PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 18 base pairs
                                                                                                                                                                                                                                                                       TITLE OF INVENTION: Regulation of bc1-2 Gene Expression NUMBER OF SEQUENCES: 29
                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                              COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US V
FILING DATE: 05-JUN-1995
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CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/09/080,285
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                                                                                                                                                      STREET: 1755 S. CITY: Arlington STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                             ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, ADDRESSEE: P.C.
                COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 teteccagegtgegeeat 18
                                                                             MEDIUM TYPE: Floppy disk
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                                                                                                                 22202
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                                                                                                                                                                                        E: P.C.
1755 S. Jefferson Davis Hwy., Suite 400
                                                                                                                                      U.S.A.
                                                                                                                                                                                                                                                                                                                 Reed, John
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Query Match Best Local Similarity

Matches 18; Conservative

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                                                                          GS-09-249-730-218
                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                     SEQ ID NO 218
                                                                                                                                                                 APPLICANT: WRIGHT, Jim A.
APPLICANT: YOUNG, Alping H.
APPLICANT: YOUNG, Alping H.
TITLE OF INVENTION: Antitumor Antisense Sequences Directed Against R1 and
TITLE OF INVENTION: R2 Components of Ribonucleotide Reductase
FILE REFERENCE: 032396-040
FILE REFERENCE: 032396-040
CURRENT FILING DATE: 1999-02-11
NUMBER OF SEQ ID NOS: 220
SOFTWARE: FatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE: (408) 436-2075
TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 34,600
REGISTRATION NUMBER: 33:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION: NAME: Fortney, Andrew D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 05-JUN-
PRIOR APPLICATION DATA:
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                                                                                                                  TYPE: DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: Other nucleic acid; DESCRIPTION: Synthetic DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 07/840,716
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear
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hes 18; Conservative
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100.0%; Score 18; DB 3; Length 18; 100.0%; Pred. No. 1.4;
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100.0%; Pred. No. 1.4;
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                                                                                                                           GENERAL INFORMATION:
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APPLICANT: Krieg, Arthur M.

TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
FILE REFERENCE: C1039/7004 HCL
CURRENT APPLICATION NUMBER: US/08/738,652B
CURRENT FILING DATE: 1996-10-30
EARLIER APPLICATION NUMBER: US 08/276,358
EARLIER FILING DATE: 1994-07-15
                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                  Query Match
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LENGTH: 18 base pairs
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TELEPHONE: 619-235-8550
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MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: FastSEQ for Windows Version 2.0b CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Brown, Lauren R. APPLICANT: Xu, Cheng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                            1 TCTCCCAGCGTGCGCCAT 18
                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: nucleic acid
STRANDEDNESS: sing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Bartfeld, Neil S
REGISTRATION NUMBER: 39,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                           1 tctcccagcgtgcgccat 18
                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: U
ZIP: 92660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             E: Knobbe, Martens, Olson & Bear
620 Newport Center Drive, 16th Floor
                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  619-235-0176
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                                                                                                                                                                                                                                                                                                                                                                                                                               linear
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100.0%; Pr
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                                                                                                                                                                                                                                                                                                                         Score 18; DB;
Pred. No. 1.4;
                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                       DB 3; Length 18;
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US-09-286-098-59
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                                                                                                                                                                                                                                        Sequence 59, Application US/09286098 Patent No. 6218371
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SOFTWARE: FastSEQ for
SEQ ID NO 27
                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
            CURRENT APPLICATION NUMBER: US/09/286,098
CURRENT FILING DATE: 1999-04-02
EARLIER APPLICATION NUMBER: US 60/080,729
EARLIER FILING DATE: 1998-04-03
                                                                                 TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and TITLE OF INVENTION: CYtokines
FILE REFERENCE: C1039/7026/HCL
                                                                                                                                            APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
TITLE OF INVENTION: Methods and Products for Stimulating the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local (
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NUMBER OF SEQ ID NOS: 105
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APPLICANT: Schwartz, David A.
TITLE OF INVENTION: USE OF NUCLEIC ACIDS CONTAINING
TITLE OF INVENTION: UNSETHYLATED CPG DINUCLECTIDE IN THE TREATMENT OF
TITLE OF INVENTION: LPS-ASSOCIATED DISORDERS
FILE REFERENCE: C1039/7011
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Best Local Similarity 100.0%; Score 18; DB.
Matches 18, 100.0%; Pred. No. 1.4;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/030,701B CURRENT ETITING DATE: 1998-02-25 PRIOR APPLICATION NUMBER: 60/039,405 PRIOR FILING DATE: 1997-02-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA ORGANISM: Artificial Sequence
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EARLIER FILING DATE: 1995-02-07
NUMBER OF SEQ ID NOS: 55
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OTHER INFORMATION: Synthetic oligonucleotide
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Pred. No. 1
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LENGTH: 18
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                                                                                                                                                                                                                                                                                                Sequence 45, Application US/08960774 Patent No. 6239116
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Best Local Similarity
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APPLICANT: Weiner, George
TITLE OF INVENTION: Methods and Products for Stimulating the
TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
TITLE OF INVENTION: Cytokines
FILE REFERENCE: C1039/7026/HCL
CURRENT APPLICATION NUMBER: US/09/286,098
CURRENT FILING DATE: 1999-04-02
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EARLIER FILING DATE: 1998-04-03
NUMBER OF SEQ ID NOS: 105
SOFTWARE: FastSEQ for Windows Version 3.0
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ZIP: 7407
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                           APPLICANT: Krieg et al.,
TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACID MOLECULES
NUMBER OF SEQUENCES: 111
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C.
STREET: 4225 Executive Square, Suite 1400
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les 18; Conserv
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                                                                                                  COUNTRY:
                                                                                                                                         CITY: La Jolla
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Description US/09078954
Patent No. 6287591
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Best Local
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Haile, Lisa A.
REGISTION NUMBER: 38,347
REFERENCE, DOCKET NUMBER: 088
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: U.S.
FILING DATE: October 30,
CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: ASCII text
CURRENT APPLICATION DATA:
APPLICATION UNMBER: US/08/96
FILING DATE: 30-October-1997
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APPLICANT:
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                                                                                                      COMPUTER: IBM Compatib
OPERATING SYSTEM: DOS
SOFTWARE: Word Perfect
CURRENT APPLICATION DATA:
                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.5 inch, 1.44 Mb
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ADDRESSEE: Oppedahl
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              CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/8
FILING DATE: 14-MAY-1997
                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                               COUNTRY: USA
ZIP: 80443-5270
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                                                                             FILING DATE:
                                                                                        APPLICATION NUMBER: US/09/078,954
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Geiser, Timothy
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                                                                                                                        Word Perfect
                                                                                                                                      IBM Compatible SYSTEM: DOS 5.0
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                                 08/856,374
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                                   Sequence 13, Application US/08410804 Patent No. 5632994 GENERAL INFORMATION:
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 60
LENGTH: 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Wu, Tong
TITLE OF INVENTION: Vectors and Methods for Immunization or
TITLE OF INVENTION: Therapeutic Protocols
FILE REFERENCE: C1039/7009
CURRENT APPLICATION NUMBER: US/09/082,649B
CURRENT FILING DATE: 1998-05-20
PRIOR APPLICATION NUMBER: US 60/047,233
PRIOR FILING DATE: 1997-05-20
PRIOR APPLICATION NUMBER: US 60/047,209
PRIOR PRIOR APPLICATION NUMBER: US 60/047,209
PRIOR FILING DATE: 1997-05-20
NUMBER OF SEQ ID NOS: 85
SOFTWARE: FASTSEQ for Windows Version 3.0
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APPLICANT: Krieg, Arthur M.
APPLICANT: Schorr, Joachim
APPLICANT: Wu, Tong
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO: 14: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
 APPLICANT:
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REFERENCE/DOCKET NUMBER: IN
TELECOMMUNICATION INFORMATION:
TELEPHONE: (970) 668-2050
                                                                                                                                                            1 tctcccagcgtgcgccat 18
                                                                                                                                                                             1 tctcccagcgtgcgccat 18
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Reed, John C.
Sato, Takaaki
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Search completed: June 28, 2002, 22:16:53 Job time:  $8279 \ \text{sec}$ 

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                                                                                                                                                     ; MOLECULE TYPE: cDNA US-08-410-804-13
                                                                 Best Local Similarity Matches 18; Conserv
                                                                                                  Query Match
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08
FILING DATE: 14-JUN-1994
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                      TELEPHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: FAS ASSOCIATED PROTEINS NUMBER OF SEQUENCES: 22
25 TCTCCCAGCGTGCGCCAT 8
                                                                                                                                                                                    STRANDEDNESS:
TOPOLOGY: li
                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/410,804 FILING DATE: 27-MAR-1995 CLASSIFICATION: 435
            1 teteceagegtgegeeat 18
                                                                                                                                                                                                                  TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: P-LJ 1389
                                                                                                                                                                                                                                                                                                                                                     NAME: Campbell, Cathryn
REGISTRATION NUMBER: 31,
                                                                                                                                                                                                                                       ENGTH:
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4370 La Jolla Village Drive. Ste 700
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y length: 75
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Match Length DB
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AR171252 Sequence
AR067581 Sequence
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AR0759348 Human mRNA
AX009040 Sequence
AX09944 Human mRNA
AX009040 Sequence
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AX09949 Sequence
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AX216149 Sequence
AX216150 Sequence
AR139322 Sequence
AR03393 Sequence
121182 Sequence 28
174449 Sequence 28
AX249410 Sequence 1
AR03372 Sequence 1
AR03372 Sequence 7
174428 Sequence 7
17448 Sequence 7
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129502 Sequence 37
191176 Sequence 37
AX008888 Sequence
S67824 envelope pr
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  AR054423 Sequence
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# ALIGNMENTS

BASE COUNT 1 a 5 c	source 116 /organism	FEATURES Location,	JOURNAL Patent: US 5831066	TITLE Regulation of bcl-	AUTHORS Reed, J.C.	REFERENCE 1 (bases 1 to 16)	Unclassified.	ORGANISM Unknown.	SOURCE Unknown.	KEYWORDS .	VERSION AR052618.1 GI:5975982	ACCESSION AR052618	DEFINITION Sequence 16 from p	LOCUS AR052618	AR052618	RESULT 1
5 c 10 g 0 t	116 /organism="unknown"	Location/Qualifiers	6-A 16 03-NOV-1998;	Regulation of bcl-2 gene expression		3					175982		Sequence 16 from patent US 5831066.	16 bp DNA		
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														PAT 29-SEP-1999		

Query Match 100.0%; Score 16; DB 6; Length 16; Best Local Similarity 100.0%; Pred. No. 1.2e+04;

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16; Conserv
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Edwards,C.A., Cantor,C.R., Andrews,B.M., Turin,L.M. and Fry,K.E.
Sequence-directed DNA-binding molecules compositions and methods
Patent: US 5578444-A 374 26-NOV-1996;
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Sequence 3 from Patent W09964584
AX008888
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1 (bases 1 to 35)
1 (sammer, P. and Peter, M.
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 Molluscum contagiosum virus
            1 (bases 1 to 53)
Porter,C.D., Blake,N.W., Cream,J.J.
                                                                                                      S67824.1 GI:544609
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Edwards,C.A., Cantor,C.R., Andrews,B.M. and Turin,L.M.
Screening assay for the detection of DNA-binding molecules
Patent: US 5726014-A 374 10-MAR-1998;
Location/Qualifiers
                                    Molluscipoxvirus
                                                  Viruses; dsDNA viruses, no RNA stage;
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AX215485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nogo gene expression
Patent: WO 0159103-A 927 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 (bases 1 to 17)
Blatt,L., Mcswiggen,J. and Chowrira,B.M.
Method and reagent for the modulation and diagnosis
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AX216149
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Blatt,L , Mcswiggen,J. and Chowrira,B.M. Method and reagent for the modulation and diagnosis of cd20 and
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                          artificial sequence.
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/db_xref="taxon:32630"
/note="Nucleic Acid"
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Pred. No. 1.9e+05;
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Patent: WO 0159103-A 1591 16-AUG-2001;
RIBOZYME PHARMACEUTICALS, INC. (US); Blatt, Lawrence (US);
McSwiggen, James (US); Chowrira, Bharat M. (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1592 from Patent W00159103. AX216150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nogo gene expression Patent: WO 0159103-A 1592 16-AUG-2001; RIBOZYME PHARMACEUTICALS, INC. (US); Blatt, Law. MCSWiggen, James (US); Chowrira, Bharat M. (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 (bases 1 to 17)
Blatt,L., Mcswiggen,J. and Chowrira,B.M.
Method and reagent for the modulation and diagnosis of cd20 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  artificial sequence.
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UNITVERSAL primer sequence for multiplex DNA amplification Patent: US 6207372-A 30 27-MAR-2001; Location/Qualifiers 1...20
                                                                                                                                                                Sequence 30 from patent US 6207372.
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                                                                                                           Unknown
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/note="Nucleic Acid"
/note= 3 g
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/db_xref="taxon:32630"
/note="Nucleic Acid"
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92.9%;
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                                                                                                                        Murtagh, J.J.
Methods for adapting nucleic acid for detection, sequencing, and cloning using exonuclease
Patent: US 5518901-A 28 21-MAY-1996;
                                                                                                                                                                                                                          21 bp
Sequence 28 from patent US 5518901.
IZ1182
IZ1182.1 GI:1601536
                                 Similarity
                                                                                                                                                                                     Unclassified.
                                                                                                                                                                                                         Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 21)
Murtagh,J.J. Jr. and Thunnissen,F.B.J.M.
Methods for nucleic acid detection, sequencing, and cloning using
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent:
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Pred. No. 3.5e+05;
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I74449/c
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50 bp
Sequence 1 from Patent W09617081.
A51123
A51123.1 GI:2303898
                                                                                                                                                               13;
                                                                                                                                                                                                                                                                                                     Human single nucleotide polymorphisms
Patent: WO 0166800-A 1489 13-SEP-2001;
WHITEHEAD INSTITUTE FOR BIOMEDICAL RESEARCH (US)
                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 31)
Cargill, M., Ireland, J.S. and Lander, E.S.
                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1489 from Patent W00166800. 
AX249410
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Sequence 28 from patent US 5688669.
I74449
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unknown
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/db_xref="taxon:9606"
9 c 16 g
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92.9%;
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Pred. No. 3.2e+05;
1; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 12.4; DB 6;
Pred. No. 3.5e+05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                       3
(†
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                       DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA
                                                                                                                                                                                  Length 31;
                                                                                                                                                                                                                                       1 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                     PAT 10-MAR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PAT 28-SEP-2001
                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PAT 03-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
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SOURCE unidentified.

ORGANISM unidentified.

ORGANISM unidentified.

ORGANISM unidentified.

REFERENCE 1 (bases 1 to 50)

AUTHORS Collier, D. and Kerwin, R.

TITLE ASSESSMENT FOR TREATMENT WITH NEUROLEPTIC AGENTS
JOURNAL INTO OF DSYCHAIRTY (GB)

COMMENT OT OF DSYCHAIRTY (GB)

Other publication AU 3931295 960619.

FEATURES 1. .50

COMMENT Conganism="unidentified"

Location/Qualifiers

Source /organism="unidentified"

ASSE COUNT 3 a 25 c 13 g 9 t

ORIGIN

Ouery Match 77.5%; Score 12.4; DB 6; Length 50;

Best Local Similarity 92.9%; Pred. No. 2.8e+05;

Matches 13; Conservative 0; Mismatches 1; Indels 0; Gaps

Oy 3 99agcgcggggc 16

II | | | | | | | | | | | |

Db 15 GGGGCGCGGCGCC 2

Search completed: June 28, 2002, 22:11:18
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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.

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OM nucleic - nucleic search, using sw model
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Post-processing: Minimum Match 0%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB seq length: 0
Maximum DB seq length: 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N_Geneseq_032802:*
1: /SIDS1/gcgdata/ge
2: /SIDS1/gcgdata/ge
3: /SIDS1/gcgdata/ge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       June 28, 2002, 22:40:19 ; Search time 1381.16 Seconds (without alignments)
19.890 Million cell updates/sec
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16
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Gapop 10.0 , Gapext 1.0
                                                                                                        | SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1980.DAT:*
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1981.DAT:*
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1981.DAT:*
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1982.DAT:*
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1983.DAT:*
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1983.DAT:*
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1985.DAT:*
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1989.DAT:*
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1989.DAT:*
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1989.DAT:*
| SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1999.DAT:*
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/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2001A.DAT:*
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2001B.DAT:*
/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2002.DAT:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Match 100%
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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13.6 13.4	16 16	16 16	16 16	16	Score	
85.0 83.8	100.0	100.0	100.0	100.0 16	Query Match Length DB	de
66 67	50	16 50	16 16	16	ength I	
21 21	18 20	15	19	16	ä	
AAC31547 AAC11202	AAX17374	AAX18701 AAQ69624	AAV28180 AAX23692	AAQ86658	ID	
Human secreted pro	Test sequence from	Human bcl-2 proto-	Antisense origonuc Deletion sequence	Bcl-2 antisense ol	Description	

Hullall SNF CityChac	AAL340/4	22	50	77.5	12.4	_	
S N T	AAL30181	22	50	77.5	12.4	_	a
xard	AAT73764	18	50	7	12.4		a
SIOIC	AAT73762	18	50	77.5	12.4	_	C
Tex Short	AAT73776	18	50	77.5	12.4		a
SHOLL	377	18	50	77.5	12.4	_	o ·
short-	AAT73770	18	50		12.4		o
Short-	AAT73788	18	50		12.4		ი <sub>'</sub>
short-	AAT73782	18	50				o i
short-	AAT73781	18	50	7	12.4		o (
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short	AAT73786	18	49	77.5		ω 1	ი (
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Z C	AAA60889	21	<u>ω</u>		12.4		Ω
rimer JCI/I	AAZ29432	21	24		12.4		o ·
ന	AAT80851	18	21				C
-spectite	AAQ78562	16	21				ი
110 #29 0	AAT47373	18	20	77.5			Ω
9	ABK01592	23	17				a
NOGO	ABK01591	23	17	7			C
Human NOGO Inozyme	ABK00927	23	17		12.4		0
TGE-T OTIGOUNGTEOU	AAF49144	22	15				n
-	AAF49143	22	15				C
e Clock gene	AAV61402	19	71				G (
Human Procos III at	AAC97520	22	47				n
PRO POLYPEP	AAF72719	22	47				a
cimer for in	AAX52519	20	47				ი (
TOI	AAQ14201	12	38				2
e DEDD	AAZ43925	21	35 5	•	N.	12	
e nuc	10	22	31		12.8	1 ;	
gene	AAT42053	17	25	80.0	S	10	

## ALIGNMENTS

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RESULT
AAQ86658
AAQ86658 standard; DNA; 16 BP
                                                                                                                            misc_feature
                                                                                                                                                     Synthetic.
                                                                                                                                                                   Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy; lymphoma; programmed cell death; ss.
                                                                                                                                                                                              Bcl-2 antisense oligonucleotide.
                                                                                                                                                                                                                                AAQ86658;
         Reed JC;
                        (REED/) REED J C.
                                          20-SEP-1993;
                                                          20-SEP-1994;
                                                                           30-MAR-1995.
                                                                                           W09508350-A.
                                                                                                                                                                                                               27-SEP-1995 (first entry)
                                           93US-0124256
                                                          94WO-US10725
                                                                                                                            Location/Qualifiers 1..16
                                                                                                            /*tag= a
/note= "3'-5' (antisense) sequence"
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WPI; 1995-139394/18

0

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RESULT
AAV28180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DЪ
                             comprises a support and an affinity unit that specifically and reversibly binds a target oligonucleotide, and comprises a sequence of bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative diseases, for treating a non-pathogen, non-hyperproliferative disease, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic
                                                                                                                                                        AAV28155-268 represent oligonucleotides which can be purified using method of the invention. The specification describes a matrix that
                         pathogen, retrovirus
                                                                                                                                                                                                          Disclosure; Page 85; 183pp; English.
                                                                                                                                                                                                                                                 Matrix for selective separation of oligo:nucleotide - useful for, e.g. large scale purification of anti-sense agents from their
                                                                                                                                                                                                                                                                                                      WPI; 1998-362922/31.
                                                                                                                                                                                                                                                                                                                                                                   (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                  19-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                               18-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W09827425-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                affinity purification; antisense; bcl-2; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Antisense oligonucleotide to bcl-2 mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              08-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAV28180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAV28180 standard; DNA; 16 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            programmed cell death (DNA fragmentation) in the human lymphoma cell line RS11846. The oligonucleotides are phosphodiesters targeted against the translation initiation site (AAQ86650-55) or the 5'-cap region (AAQ86656-58) of human bcl-2 pre-mRNAs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Antisense oligonucleotides were tested for their ability to induce programmed cell death (DNA fragmentation) in the human lymphoma cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Anti-code oligomers which bind to bcl-2 mRNA - for the treatment of human solid tumours, esp. breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 16 BP; 1 A; 5 C; 10 G; 0 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 12; Page 33; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 cgggagcgcggcggc 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 cgggagcgcggcgggc 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N
                                                                                                                                                                                                                                                                                                                                     Cole DL,
                                                                                                                                                                                                                                     derivatives formed during synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          oligonucleotide; matrix; affinity unit;
                                                                                                                                                                                                                                                                                                                                                                                                96US-0769951
                                                                                                                                                                                                                                                                                                                                                                                                                              97WO-US23284.
                                                                                                                                                                                                                                                                                                                                 Srivatsa GS;
                        or other viruses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3.9e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                            for treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                        the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
```

Sequence 16

BP; 1 A; 5 C; 10 G; 0 U; 0 other;

Sequence 16

BP; 1 A; 5 C; 10 G; 0 U;

0 other;

100.0%;

Score 16;

DΒ 20;

Length 16;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                     proliferation, and being active against a cukaryotic pathogen, a human retrovirus, a human immunodeficiency virus, Epstein-Barr virus, Respiratory syncytial Virus or cytomegalovirus (CMV). The compositions enable characterization of deletion sequence oligonucleotides having related, but different nucleobase sequences, and quantification of different species of deletion sequence ("target") oligonucleotides in a mixture. Also, if the specificity of the oligonucleotide's nucleobase sequence for its reverse complement is not modified, the method may be performed
                                                                                                                                                                                       oligonucleotides. The compositions form a method for characterizing a sample of target deletion oligonucleotides which are labelled and hybridize with the probe oligonucleotides of the sensor arrays. Such oligonucleotides and their targets are represented in AAX23548-X23709. Oligonucleotides characterized by the method form pharmaceutical compositions that are useful for modulating cellular adhesion or
                                                                                                                                                                                                                                                                                         sensor arrays, where each array comprises a unique probe oligonucleotide, which is the reverse complement of part of a unique target oligonucleotide present in a mixture of target deletion sequence
                                                                                                                                                                                                                                                                                                                                             This invention describes a novel composition comprising a number of
                                                                                                                                                                                                                                                                                                                                                                                    Example 9; Page 152; 163pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                New compositions comprising sensor arrays made up of unique probe cligonucleotides - useful for characterizing a sample of target
                                                                                                                                                                                                                                                                                                                                                                                                                        deletion oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1999-205198/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Deletion sequence oligonucleotide; sensor array; eukaryotic pathogen; probe; cellular adhesion modulator; cellular proliferation modulator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              W09911820-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HIV; primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Deletion sequence oligonucleotide 145.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAX23692;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAX23692 standard; DNA; 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       human retrovirus; human immunodeficiency virus; non-human retrovirus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
les 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 cgggagcgcggcgggc 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 cgggagcgcggcgggc 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ω
                              oligodeoxynucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Srivatsa GS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97US-0923771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-US18084.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 16; DB 1y;
Pred. No. 3.9e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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Best Local Similarity

100.0%;

Pred. No. 3.9e+02;

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RESULT
AAX18701
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qy
                                                                                                                                                        A pharmaceutical composition has been developed which comprises a concluder acid and at least one penetration enhancer. The compositions are used: (1) to treat or prevent any disease or disorder that can be treated with the nucleic acid, e.g. cancer, Alzheimer's disease.

CC beta-thalassemia, malaria, viral infections (including human inmune deficiency virus (HIV)), inflammation, in human or animal medicine; (ii) to investigate the role of a gene or gene product in non-human cc animals; and (iii) to modulate gene expression in cells, tissues or cryans. The compositions provide bloavailability of at least 15, preferably 17-35,%. The penetration enhancer improves: (i) transport of the nucleic acid across the mucosa of the alimentary canal and into cells; and (ii) increases stability of the nucleic acid. Oral administration avoids the complications and expense of intravenous or cher methods of administration. AAX18669 to AAX18799 and AAX18801 crepresent antisense oligonucleotides which can be used as the nucleic acid in the method of the invention.
                                                                       Query Match
Best Local :
                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                           Composition comprising nucleic acid and penetration enhancer - used particularly for delivering therapeutic antisense oligonucleotides across the gastrointestinal mucosa, provides high bioavailability
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cellular adhesion protein; proliferation; antisense oligonucleotide; alimentary canal; transport; gastrointestinal mucosa; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                  Example 2; Page 86; 115pp; English.
                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1999-106077/09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hardee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Target bcl-2 antisense oligonucleotide #33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAX18701 standard; DNA; 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            W09901579-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alzheimer's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAX18701;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 cgggagcgcgggcgggc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 cgggagcgcggcgggc 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4
            cgggagcgcggcgggc 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       inflammation;
                                                        l Similarity
16; Conserv
                                                                                                                                 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   disease; beta-thalassemia; malaria; viral infection;
                                                                                                                                 BP;
                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97US-0886829
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                                                                                                                                A.
                                                                                                                                 σı
                                                                       100.0%;
                                                                                    100.0%;
                                                                                                                                c;
                                                                                                                                10 G;
                                                        0;
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                                                                      Score 16;
Pred. No.
                                                                                                                                0 U; 0 other;
                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                      3.9e+02;
                                                                                    DB 20;
                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                  Length 16;
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                                                      0,;
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                                                                                                                                                                                                                                                                                                                                                                       are
                                                                                                                                                                                                                                                     O.
                                                      0;
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RESULT 5
AAQ69624/c
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                            Ωy
                                                             Matches
                                                                                          Query Match
                                                                                                                                                                                                                              adjacent to a defined protein binding screening sequence. Binding of mols. to these test sequences changes the binding characteristics of the protein mol. to its cognate binding sequence. When such a mol. binds the test sequence, the equilibrium of the DNA: protein complexes is disturbed, generating changes in the concentration of free DNA probe. One application of this method is to encaryotic general transcription factors (e.g. TFIID), where the target region is typically selected from DNA sequences adjacent to the binding site for the eucaryotic transcription factor. Numerous exemplary test sequences are given: the sequences in AAQ69751-731 and AAQ69950 correspond to promoter targets (typically, TATA box-contg. sites) for human genes and the sequences in AAQ69732-849 correspond to promoter targets.
                                                                                                                                                                                                                                                                                                                                                                                                          A DNA protein-binding assay is provided, useful for screening libraries of synthetic or biological cpds. for their ability to bind DNA test sequences. The assay is versatile in that any number of test sequences can be tested by placing the test sequence number of test sequences.
                                                                                                                                        Sequence 50
                                                                                                                                                                                     The test sequences may also be randomly generated. DNA:protein interaction may be used for screening purposes, e.g. the Herpes Simplex Virus (HSV) origin of replication and UL9 (see AAQ69851-52, AAQ69865 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA protein-binding assay; test sequence; screening sequence; promoter; target; TATA box; Herpes Simplex Virus; HSV; origin of replication; UL9; transcription factor; TFIID: ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 28; Page 399; 587pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence-directed DNA-binding molecules - pharmaceuticals and as molecular reagents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1994-234711/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-DEC-1992;
17-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-JUL-1994.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9414980-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human bcl-2 proto-oncogene,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAQ69624 standard; DNA; 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Andrews BM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GENE-) GENELABS TECHNOLOGIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-DEC-1993;
43
                                                           Local Similarity 
nes 16; Conserv
              1 cgggagcgcggcgggc 16
                                                                                                                                        BP; 0
                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cantor CR, Edwards CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    92US-0996783
93US-0123936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   93WO-US12388
                                                                                                                                        A; 34 C;
                                                                           100.0%;
28
                                                                                                                                          13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ₿P.
                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         target region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INC.
                                                                  Score 16; DB 17,
                                                                                                                                        G; 3 T; 0 other;
                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fry KE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Turin LM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'n
                                                             Indels
                                                           0;
                                                           Gaps
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AAT64086/c

AAT64086 standard; DNA; 50 BP

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                                                                                                                                                                                                                    binds sequence-specifically to a target region, where, when the small conclude is bound to the target region, it is adjacent to, but not coverlapping by more than 4 bp, a binding site for a DNA-binding protein. The small molecule is added at a concentration effective to alter the binding of the DNA binding protein, pref. TFIID, to its binding site on the duplex DNA. The binding protein, pref. TFIID, to its binding site on the duplex DNA. The binding protein to its binding site. The compounds isolated using this method are potentially useful as the compounds isolated using this method are potentially useful as the compounds isolated using this method are potentially useful as the compounds isolated using this method are potentially useful as the compounds isolated using this method are potentially useful as the compounds isolated using this method are potentially useful as the compounds isolated using this method are potentially useful as the compounds isolated using this method are potentially useful as the compounds isolated using this method are potentially useful as the compounds isolated using this method are potentially useful as the compound of the method is suitable for screening large biological or chemical continuation of sequence-specific and relative affinities of known DNA-binding agents for different DNA sequences. The design of these duplex DNA's allows a single DNA:protein interaction to be used for screening sequence-specific, or preferential, DNA binding protein interaction to be used for screening sequence-specific, or preferential, DNA binding the protein interaction i
                                                                                                                 Query Match
Best Local Similarity
                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-DEC-1993;
27-JUN-1991;
23-DEC-1992;
17-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Duplex DNA; target region; binding characteristic; DNA binding protein; TFIID; transcription factor; binding site; inhibition; enhance; cancer; inherited genetic disorder; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The sequences given in AAT63713-4312 represent duplex DNA's which act as target regions in the method of the invention. The method for altering the binding characteristics of a DNA-binding protein to duplex DNA comprises contacting the duplex DNA with a small molecule which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Altering binding characteristics of DNA binding proteins to duplex DNA - by attaching specific small cpd. to target region close to the protein's binding site, useful in treatment of viral disease, cancer
                                                                                                                                                                                                                 Sequence 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Andrews BM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-NOV-1996
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human B-cell leukeamia/lymphoma 2 protoocogene TFIID binding site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-MAR-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1997-020402/02
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43
                         cgggagcgcggcgggc 16
CGGGAGCGCGGCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6; Column 289; 264pp; English.
                                                                                             16;
                                                                                                                                                                                                                    BP; 0 A;
                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   93US-0171389.
91US-0723618.
92US-0996783.
93US-0123936.
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                                                                                                                 100.0%;
                                                                                                                                                                                                                    34 C;
28
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                                                                                                                                                                                                                    13
                                                                                             0;
                                                                                                                 Score 16; DB 18;
Pred. No. 3.3e+02;
                                                                                                                                                                                                                    9
                                                                                               Mismatches
                                                                                                                                                                                                                    3 T;
                                                                                                                                                                                                                    0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fry KE,
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                                                                                                                                        Length 50;
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AAX17374/c

DЬ

43

CGGGAGCGCGGCGGC

28 16

1 cgggagcgcggggc

0,

H AAC31547 RESULT

8

AAC31547 standard; cDNA; 66 BP

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Sequences AAX17001 to AAX17600 represent specifically claimed target CC test sequences that are used in the method of the invention of Cd etermining the DNA sequence preference of a DNA-binding molecule. The CC method comprises: (i) adding a test molecule and a DNA-binding protein to CC a mixture of duplex DNA test oligonuclectides, each of the test CO ligonuclectides having a test sequence adjacent to a screening sequence, CC where the screening sequence binds to the DNA-binding protein with a CC binding affinity that is independent of the DNA sequence of the test Sequence, and where the mixture of duplex DNA test oligonuclectides considered to the CNA sequence of the test CC includes several test sequences; (ii) incubating the test molecule, the CC mixture of duplex DNA test oligonuclectides and the DNA-binding protein CC oligonucleotides from test oligonucleotides and the DNA-binding protein; CC (iv) amplifying the unbound test oligonucleotides; (v) repeating steps CC (ii) to (iv); (vi) isolating the amplified test oligonucleotides; and CC (vii) sequencing the isolated test oligonucleotides. Test sequences CC AAX17001-X17481 and AAX17600 correspond to promoter targets for human CC genes and test sequences AAX17482-X17599 correspond to promoter targets.
 Matches
                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-DEC-1992;
17-SEP-1993;
07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Test sequence; DNA-binding molecule; screening sequence; human, nucleic acid amplification; target; viral; ds.
                                                                               Sequence 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 3; Columns 291-292; 270pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               based on inhibition of binding of page of the sequence attached to test sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Determination of DNA sequence preference of a DNA-binding molecule based on inhibition of binding of protein to oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1999-152755/13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-DEC-1993;
27-JUN-1991;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Andrews BM,
l Similarity 100
16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENELABS TECHNOLOGIES INC
                                                                                BP; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cantor CR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               from B-cell leukemia/lymphoma 2 (bcl-2) proto-oncogene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92US-0996783
93US-0123936
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91US-0723618
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                                                                                Ą;
                 100.0%;
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                                                                                c;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Edwards CA,
                                                                                13 G; 3 T; 0 other;
   0;
                  Score 16;
Pred. No.
   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fry KE,
                  3.3e+02;
                                    DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Turin
                                Length 50
   Indels
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   0;
   Gaps
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RESULT
AAC11202
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                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                          identified within the present sequence. The 5' ESTs were prepared from total human RNAs or polyA+ RNAs derived from 30 different tissues. EST sequences usually correspond mainly to the 3' untranslated region (UTR) of the mRNA because they are often obtained from oligo-dT primed cDNA libraries. Such ESTs are not well suited for isolating cDNA sequences derived from the 5' ends of mRNAs and even in those cases where longer cDNA sequences have been obtained, the full 5' UTR is rarely included. 5' ESTs are derived from mRNAs with intact 5' ends and can therefore be used to obtain full length cDNAs and genomic DNAs. 5' ESTs are also used in diagnostic, forensic, gene therapy and chromosome mapping procedures. They are used to obtain upstream regulatory sequences and to design expression and serverior upstream regulatory sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence is one of a large number of 5' ESTs derived from mRNAs encoding secreted proteins. No ORF has yet been conclusively identified within the present sequence. The 5' ESTs were prepared from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New nucleic acid that is a 5' expressed sequence tag (5' EST) for obtaining cDNAs and genomic DNAs that correspond to 5'ESTs and for diagnostic, forensic, gene therapy and chromosome mapping procedures
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-SEP-2000.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; 5' EST; expressed sequence tag; secreted protein; cDNA isolation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human secreted protein 5'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dumas Milne Edwards J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-FEB-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAC31547;
                           gene
                                                                                                                                                                                                                                                                                                                                                                                     Sequence 66 BP; 9 A; 27 C; 20 G; 8 T; 2 other;
                                                                                                                                                                                                                                                                                                                                                                                                                     expression and secretion vectors.
                                                                                                       06-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GEST ) GENSET.
                                          Human;
                                                                                                                                                                   AAC11202 standard; cDNA; 67
                                                                          Human secreted
                                                                                                                                      AAC11202;
                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                              1 cgggagcgcggcgggc 16
                                                                                                                                                                                                                                              5 cgggagcgcrstgggc 20
                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000-500381/45.
                         therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1; SEQ ID 35622; 71pp + CD-ROM; English.
                                                                                                                                                                                                                                                                                                            13;
                         5' EST; expressed sequence tag; secreted protein; cDNA isolation.
herapy; chromosome mapping; ss.
                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                chromosome mapping; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99US-0122487
                                                                         protein 5'
                                                                                                                                                                                                                                                                                                                          85.0%;
81.2%;
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                                                                          EST,
                                                                                                                                                                     ВP
                                                                                                                                                                                                                                                                                                            2;
                                                                                                                                                                                                                                                                                                                          Score 13.6; DB 21 Pred. No. 3.2e+03;
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                                                                          SEQ ID NO: 15277
                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Giordano
                                                                                                                                                                                                                                                                                                                                         DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tag (5' EST) for to 5'ESTs and for
                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                            66;
                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                             0;
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Synthetic

26-APR-1995; 26-APR-1995; 30-OCT-1996 EP739984-A1

95EP-0106275 95EP-0106275

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B
                                                                                                                                                                                                                                                                                                                                                                                                                                                QΥ
AAT42053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence is one of a large number of 5' ESTs derived from mRNAs encoding secreted proteins. No ORF has yet been conclusively identified within the present sequence. The 5' ESTs were prepared from total human RNAs or polyA+ RNAs derived from 30 different tissues. EST sequences usually correspond mainly to the 3' untranslated region (UTR) of the mRNA because they are often obtained from 1190-dT primed cDNA libraries. Such ESTs are not well suited for isolating cDNA sequences derived from the 5' ends of mRNAs and even in those cases where longer cDNA sequences have been obtained, the full 5' UTR is rarely included. 5' ESTs are also used to obtain full length cDNAs and genomic DNAs. 5' ESTs are also used in diagnostic, forensic, gene therapy and chromosome mapping procedures. They are used to obtain upstream regulatory sequences and to design
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New nucleic acid that is a 5' expressed sequence tag (5' EST) for obtaining cDNAs and genomic DNAs that correspond to 5'ESTs and for
                                                                                                                                                                                                                                                                                                                                        AAT42053 standard; DNA; 25 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         expression and secretion vectors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 1; SEQ ID 15277; 71pp + CD-ROM; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        diagnostic, forensic, gene therapy and chromosome mapping procedures
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-500381/45.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dumas Milne Edwards J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-FEB-2000; 2000EP-0200610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EP1033401-A2
                                                                                                                                                                                               Exotoxin A; ETA; cytotoxin; Pseudomonas aeruginosa;
single chain antibody; scFv; monoclonal antibody; MAb; EGF;
                                                                                                                                                                                                                                             Exotoxin A gene PCR primer.
                                                                                                                                                                                                                                                                            29-JAN-1997
                                                                                                                                                                  polymerase
                                                                                                                                                                                  epidermal
                                                                                                                                                                                                                                                                                                                                                                                                                   29 cgggagagcggcggg 43
                                                                                                                                                                                                                                                                                                                                                                                                                                1 cgggagcgcggcggg 15
                                                                                                                                                                                  growth
                                                                                                                                                                  chain reaction; PCR; primer; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP; 11 A; 21 C; 29 G; 6 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9908-0122487
                                                                                                                                                                                  factor; receptor; cancer; therapy; antitumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Duclert A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 13.4; DB 21 Pred. No. 3.9e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Giordano
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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ACC XXX X ACC XX
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AAI31001
ID AAI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
Nucleic acid molecules from the human genome which include polymorphic sites, useful in methods for predicting the presence, absence or severity of a particular phenotype or disorder (e.g. diabetes) associated with a particular genotype -
                                                                                                                                                                                                    Cargill M,
                                                                                                                                                                                                                                                                                                          07-MAR-2000;
22-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                     07-MAR-2001; 2001WO-US07268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PCR primers (AAT42053 and AAT42054) were designed to amplify a portion of the exotoxin A (ETA) gene of pseudomonas aeruginosa coding for amino acids 380-613 of the ETA protein. Plasmid pwW20 was used as template. Another primer pair (AAT42051-52) was used to amplify DNA coding for ETA amino acids 252-366. The amplified fragments can be adapted for insertion into novel bacterial expression vectors (see also AAT42038-44) coding for bivalent proteins (AAW05138-44) that include the cytotoxin ETA. These fusion proteins are useful as antitumour agents.
                                                                                                                                                                                                                                                     (WHED ) WHITEHEAD
                                                                                                                                                                                                                                                                                                                                                                                                                                            13-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200166800-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Variation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bivalent fusion proteins that bind epidermal growth factor receptor or analogues - and comprise at least two different cell surface binding domain(s), useful for tumour therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAI31001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAI31001 standard; DNA; 31 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 25 BP; 1 A; 9 C; 13 G; 2 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Groner B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (SANT-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 cgggagcgcgggc
                                                                                                                                            2001-522952/57.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cgggagctctgcgggc 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1996-478748/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               resequence;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9.4; Page 10; 52pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SAN TUMORFORSCHUNGS
                                                                                                                                                                                                 Ireland
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Schmidt M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                       2000US-0187510.
2000US-0206129.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nucleotide polymorphism (SNP) 218.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        replace(16,T)
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /standard_name= "single nucleotide polymorphism"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                INST BIOMEDICAL RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                polymorphism;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               genotype;
                                                                                                                                                                                                 JS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               80.0%;
87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Wels W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         disease; forensic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 12.8;
                                                                                                                                                                                                 ES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SNP; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         paternity testing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                    apoptosis which has antitumor and antiviral activity. (I) is expressed ubiquitously and after induction of the CD95 apoptotic signalling pathway migrates to the nucleus/nucleolus where it inhibits transcription of ribosomal DNA, and thus biosynthesis of proteins, including those with anti-apoptotic activity. (I), or the DNA (II), encoding it, is used for regulation and diagnostic detection of apoptosis, particularly in cases of disease, e.g. of the immune system (e.g. acquired immune deficiency syndrome) and tumors, also for studying apoptosis or its regulation. Antibodies (Ab) specific for (I) are used to detect/quantify (I) is used to raise Ab and for detection of specific autoantibodies. (II), or detection of the actival primary and the control of specific autoantibodies. (II), or detection of specific autoantibodies. (II), or detection of specific autoantibodies. (II), or detection of specific autoantibodies.
                                                                                                                                                                                              This invention describes a novel DEDD protein (I) for regulating
                                                                                                                                                                                                                                                                                                           WPI; 2000-063547/06
                                                                                                                                                                                                                                                                                                                                                                                                      08-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus sp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAZ43925;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAZ43925 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (AAI29513-AAI31314) from the human genome which include polymorphic sites which can predispose individuals to disease. Various genes from a number of individuals were resequenced and single nucleotide polymorphisms (SNPs) in these genes discovered. The method is useful for predicting the presence, absence or severity of a particular phenotype or disorder (e.g. diabetes) associated with a particular genotype. The nucleic acids and particular genotype.
                                                                                                                                                                                                                                 Example
                                                                                                                                                                                                                                                                                                                                          Peter M,
                                                                                                                                                                                                                                                                                                                                                                         (DEKR-) DEUT KREBSFORSCHUNGSZENTRUM
                                                                                                                                                                                                                                                                                                                                                                                                                                    08-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DE19825621-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEDD; murine; apoptosis; protein biosynthesis inhibitor; CD95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Murine DEDD PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              containing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 cgggagcgcggcgggc 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 cgggagcggggtgggc 17
                                                                                                                                                                                                                                                           protein for regulating apoptosis, thent of e.g. tumors and acquired
                                                                                                                                                                                                                                1; Column 4; 12pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Page 122; 145pp; English.
                                                                                                                                                                                                                                                                                                                                          Krammer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the polymorphic sites may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                       98DE-1025621
                                                                                                                                                                                                                                                                                                                                                                                                                                    98DE-1025621
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          87
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   35
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G
()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     identification of nucleic acid molecules
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ₽,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12.8;
No. 7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0 other;
                                                                                                                                                                                                                                                         particularly for diagnosis immune deficiency syndrome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                useful in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .8e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels ·
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                 , or
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derived primers, can be used to detect expression and organization of

also for inducing

expression of (I) in

OATA

or

corresponding gene,

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RESULT 14
AAX52519/c
ID AAX525
XX
AC AAX525
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 13
AAQ14201/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SSSSS
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Best Local S
Matches 14
                                                                                                                          Query Match
Best Local :
                                                                                                                  Matches
                                                                                                                                                                                   starts at position corresponding to the region between bases 500-409 of the E. coli sequence. It can be used for the detection of this parasite which is a common cause of diarrhoea. See also AAQ14197-Q14203.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAQ14201 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 35 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in selected tissues. This sequence represents a PCR primer used in the amplification of the murine DEDD protein described in the method of the invention.
                                                                                                                                                                                                                         The probe hybridises to a region
                                                                                                                                                                                                                                             Claim 1;
                                                                                                                                                                                                                                                                18S ribosomal DNA or RNA nucleic acid probes - accurate detection of Giardia lamblia.
                                                                                                                                                                                                                                                                                            WPI; 1991-312505/43.
                                                                                                                                                                                                                                                                                                                                                     18-APR-1990;
                                                                                                                                                                                                                                                                                                                                                                       18-APR-1991;
                                                                                                                                                                                                                                                                                                                                                                                          23-OCT-1991.
                                                                                                                                                                                                                                                                                                                                                                                                              EP453290-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ribosomal RNA; diarrhoea; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Probe P1672 for Giardia lamblia 18S rRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-JAN-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAQ14201;
           AAX52519;
                             AAX52519 standard; DNA; 47 BP
                                                                                                                                                                 Sequence 38 BP; 0 A;
                                                                                                                                                                                                                                                                                                                                  (GENE-) GENE-TRAK SYSTEM CORPORATION.
                                                                                                                 Local Similarity 87.1 nes 14; Conservative
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                                                                             CGCGAGCGAGGCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    l Similarity 87.1
                                                                                                                                                                                                                                             Fig 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
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                                                                                                                                                                                                                                           32pp;
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87.5%;
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87.5%;
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Pred. No. 7.7e+03;
                                                                                                                 pred. No. 7.66
); Mismatches
                                                                                                                                    Score 12.8;
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    27-OCT-1997

28-OCT-1997

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28-OCT-1997

29-OCT-1997

21-NOV-1997

11-NOV-1997

21-NOV-1997

21-NOV-1997

24-NOV-1997

24-NOV-1997

24-NOV-1997

24-NOV-1997
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17-SEP-1997;
18-SEP-1997;
18-SEP-1997;
15-OCT-1997;
17-OCT-1997;
17-OCT-1997;
21-OCT-1997;
24-OCT-1997;
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17-SEP-1997;
17-SEP-1997;
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24-OCT-1997;
24-OCT-1997;
27-OCT-1997;
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24-OCT-1997;
24-OCT-1997;
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17-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Secreted protein; transmembrane protein; human; enterocolitis; 2011Inger-Ellison syndrome; gastrointestinal ulceration; congenital microvillus atrophy; skin disease; cell growth; abnormal keratinocyte differentiation; psoriasis; epithelial cancer; parkinson's disease; Alzheimer's disease; Als; neuropathy; fibromodulin; dermal scarring; Usher Syndrome; Atrophia areata; anti-thrombotic; wound healing; tissue repair; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PCR primer for in situ analysis of DNA35918-1174.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9914328-A2
            (GETH )
            GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                       970S-005263

970S-0062285

970S-0062285

970S-0062814

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970S-0063120

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970S-0063127

970S-0063127

970S-0063327

970S-0063341

970S-0063341

970S-0063544

970S-0063544

970S-006354

970S-006354

970S-006374

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97US-0059113
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RESULT 15
AAF72719/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CC Oligonucleotides AAX52276-532 represent PCR primers and probes used CC to isolate and amplify cDNA encoding scereted and transmembrane human CC proteins (see AAX52213-74 and AAY13344-403). The cDNA sequences are obtained from cDNA libraries, prepared from fetal lung, fetal kidney, CC fetal brain, fetal liver and fetal retina. The encoded polypeptides CC have specific uses based on their homology to known polypeptides, CC e.g. PRO211 and PRO217 can be used for disorders associated with the CC preservation and maintenance of gastrointestinal mucosa and the CC repair of acute and chronic mucosal lesions (e.g. enterocolitis, CC Zollinger-Ellison syndrome, gastrointestinal ulceration and congenital CC microvillus atrophy), skin diseases associated with abnormal CC lung squamous cell carcinoma of the vulva and gliomas), potent effects on CC cell growth and development, diseases related to growth or survival of CC neuropathies or cancer. PRO265 can be used as for fibromodulin, e.g. for reducing dermal scarring. PRO264 can be used as a target for anti-tumor CC drugs. PRO269 can be used as an attended to growth and congenital cancer areata; PRO269 can be used as an attended and tissue repair; PRO317 can be used for treating problems of CC the kidney, uterus, endometrium, blood vessels, or related tissue, e.g. in the heart of genital tract
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
07-JUL-1999;
26-JUL-1999;
28-JUL-1999;
                                                                                                                                                                                         ophthalmological; gene therapy; ischaemia; inflammation; probe;
                                                                                                                                                                                                                                   antiparkinsonian nootropic; neuroprotective; vulnerary; cardiant; antiangiogenic; vasotropic; antiasthmatic; antirheumatic; cancer;
                                                              22-FEB-2000; 2000WO-US04414.
                                                                                                                            WO200104311-A1
                                                                                                                                                                                                                      antiarthritic; antiinfertility; antidiabetic; antiviral; diabetes;
                                                                                                                                                                                                                                                                                                     Human
                                                                                                                                                                                                                                                                                                                                                                                                AAF72719 standard; DNA; 47 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gastrointestinal ulceration
                                                                                               18-JAN-2001
                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                               24-APR-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41 CAGGAGCGAGGCGGGC 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 the heart of genital tract.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         isolated human genes and polypeptides
                                                                                                                                                                                                                                                                                                   PRO polypeptide gene oligonucleotide SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14;
                                                                                                                                                                                                                                                                  PRO; dermatological; antipsoriatic; cytostatic; antiinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
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99US-0143048.
99US-0145698.
99US-0146222.
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87.5%;
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Pred. No. 7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G;
                                                                                                                                                                                         skin disease; gastrointestinal disorder; ss.
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Search completed: June Job time: 8097 sec

28,

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Best Local
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15-SEP-1999
15-SEP-1999
15-SEP-1999
05-OCT-1999
29-NOV-1999
30-NOV-1999
31-DEC-1999
20-DEC-1999
20-DEC-1999
                                                                                                                                                  The present sequence is a probe which was used in the isolation of one of sixty one nucleic acids encoding novel secreted and transmembrane PRO polypeptides. The PRO polypeptides are useful for treating skin diseases (e.g. psoriasis), cancers (e.g. lung squamous cell carcinoma), gastrointestinal disorders (e.g. enterocolitis), neurodegenerative diseases (e.g. Alzheimer's disease, parkinson's disease), wound repair, cardiovascular disorders (e.g. endometrial bleeding angiogenesis, ischaemias such as coronary ischaemia, atherosclerosis), inflammatory disorders (e.g. asthma, rheumatoid arthritis, multiple sclerosis), infertility, AIDS and diabetes and retinal disorders such as retinitis pigmentosum. The PRO nucleic acids have applications in molecular biology, including use as hybridization probes, and in chromosome and
                                                                                                                                         gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Godowski PJ, Grim
                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                            Example 102; Page 247; 393pp; English.
                                                                                                                                                                                                                                                                                                                                                                Sixty one nucleic acids encoding PRO polypeptides which are useful in the treatment of skin diseases (e.g. psoriasis), cancers (e.g. lung squamous cell carcinoma) and neurodegenerative diseases (e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-081051/09.
                                                                                                                                                                                                                                                                                                                                                                                                                                                Mather JP,
Williams PM,
                                                                                                                                                                                                                                                                                                                                                      Alzheimer's disease) -
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Filvaroff E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GETH ) GENENTECH INC.
41 CAGGAGCGAGGCGGGC
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                cgggagcgcggcgggc
                                                                                                                                          mapping.
                                                               Similarity
                                                                                                                   47
                                                                                                                 BP;
                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wood WI;
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Fong S, Gao W,
Grimaldi CJ, G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99WO-US21090.
99WO-US21547.
99WO-US23089.
99WO-US28214.
99WO-US28313.
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99WO-US30991.
99WO-US30999.
99WO-US30999.
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99WO-US20944.
                                                                                                                 A;
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                                                               80.0%;
                       16
26
                                                             . 5%;
                                                                                                                c;
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W, Gerber H, Gerritt
Gurney AL, Hillan K,
NF, Roy MA, Stewart '
                                                                                                                   10
                                                             Score 12.8;
Pred. No. 7
                                                                                                                G;
                                                    Mismatches
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Stewart TA,
                                                             .4e+03;
                                                                                                                   other;
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Tumas D;
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GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.

OM nucleic - nucleic search, using sw model
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Issued\_Patents\_NA:\*
1: /cgn2\_6/ptodata/1/ina/5A\_COMB.seq:\*
2: /cgn2\_6/ptodata/1/ina/5B\_COMB.seq:\*
3: /cgn2\_6/ptodata/1/ina/6A\_COMB.seq:\*
4: /cgn2\_6/ptodata/1/ina/ECOMB.seq:\*
5: /cgn2\_6/ptodata/1/ina/PCTUS\_COMB.seq:\*
6: /cgn2\_6/ptodata/1/ina/backfiles1.seq:\*

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

### SUMMARIES

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12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	16	16	16	16		16	16	Score
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3-025-1	3-025-	US-09-253-025-11	3-025-	3-025-	53-02	-253-025-	3-02	US-08-531-070A-8	070A-	PCT-US94-04310-7	US-08-479-723A-7	US-08-476-562-7	US-08-049-264C-7	US-09-677-045-10	PCT-US94-04310-28	P	US-08-476-562-28	-08-049-	US-08-983-466-30	÷	US-08-482-080A-374	US-08-475-228A-374	US-08-123-936-374	$\infty$	US-09-080-285-16	US-08-465-485A-16	ID
18,	e 15,	Sequence 11, Appl	10,	Sequence 8, Appli	5	æ	1,	8	4,	7,	7,	7,	7, A	10,	28,	28,	28,	28,	30, A	Ø	374, Ap	,	e 374, Ap	374,	Sequence 16, Appl	•	Description

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11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	73.8	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5	77.5
45	45	45	45	45	39	33	30	23	65	65	63	62	62	60	60	60	60
ŋ	ω	N	_	1	4	N	Ν	σ	4	4	Ν	N	N	4	4	4	4
PCT-US93-12388-48	US-08-482-080A-48	US-08-475-228A-48	US-08-123-936-48	US-08-171-389-48	US-09-079-984A-15	US-08-600-783-30	US-08-216-260-7	5245022-6	US-09-153-927-7	US-09-253-025-13	US-09-134-566-14	US-08-531-070A-6	US-08-531-070A-2	US-09-253-025-25	US-09-253-025-24	US-09-253-025-22	US-09-253-025-19
Sequence 48, Appl	Sequence 15, Appl	Sequence 30, Appl	Sequence 7, Appli	Patent No. 5245022	Sequence 7, Appli	Sequence 13, Appl	•	Sequence 6, Appli	Sequence 2, Appli	Sequence 25, Appl	Sequence 24, Appl	Sequence 22, Appl	Sequence 19, Appl				

## ALIGNMENTS

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                                                              Matches
                                                                              Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 16,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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                                                                                                                                                                                                                                                        TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/465,485
FILING DATE: 05-JUN-1995
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
                                                                                                                                                                             TOPOLOGY: 1
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
TELEPAX: (408) 436-2075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/080,285
                                                                                                                                                               ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 07/840,716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: Regulation of bcl-2 Gene Expression NUMBER OF SEQUENCES: 29 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                             STRANDEDNESS:
                                                                                                                                                                                                                                             LENGTH:
                                                                                                                                                                                                                                                                                                                                                         NAME: Fortney, Andrew D
REGISTRATION NUMBER: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US 0: FILING DATE: 20-SEP-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: 1755 S. CITY: Arlington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE: OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, ADDRESSEE: P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
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              cgggagcgcggcgggc 16
CGGGAGCGCGGCGGC 16
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                                                               16;
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                                                                                                                                                                                                                           : 16 base pairs
nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3: P.C.
1755 S. Jefferson Davis Hwy., Suite 400
                                                          100.0%; Score 16; DB 3; 1 ilarity 100.0%; Pred. No. 1.1e+02; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                 YES
                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-FEB-1992
                                                                                                                                                                            DNA (genomic)
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22-DEC-1988
                                                                                                                                                                                                           single
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                                                                                          Length 16;
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US-08-171-389-374/c
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INFORMATION FOR SEQ ID NO: 374:
SEQUENCE CHARACTERISTICS:
LENGTH: 50 base nain-
Type:
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                                                                  Matches
                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US 08, FILLING DATE: 22-JUN-1993
ATTORNEY/AGENT INFORMATION:
NAME: Fabian, Gary R.
REGISTRATION NUMBER: 33,87
REFERENCE/DOCKET NUMBER: 4
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APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 0: FILING DATE: 27-JUN-1991 PRIOR APPLICATION DATA:
                                                                                                                                                                                                       ORIGINAL SOURCE
                                                                                                                                                                                                                      MOLECULE TYPE:
HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 0: FILING DATE: 23-DEC-1992 PRIOR APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Turin, Lisa M.
APPLICANT: Fry, Kirk E.
TITLE OF INVENTION: Sequence-Directed DNA Binding
TITLE OF INVENTION: Molecules, Compositions and Methods
                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 17-SEP-PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 435
PRIOR APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release "."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 08 PTILING DATE: 17-SEP-1993
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                                                                                   Local
                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                        STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
                      1 cgggagcgcgggcgggc 16
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                                                                    16;
                                                                Similarity 100
16; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            USA
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Cantor, Charles R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Andrews, Beth M.
                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                        NO.
                                                                                                                                                                                                                                       DNA (genomic)
                                                                                                                                                                                                                                                                          double
                                                                               100.0%;
                                                              100.0%; Score 16; DB
100.0%; Pred. No. 91;
tive 0; Mismatches
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                                                                                                                                                                  Human B-cell leukemia/lymphoma 2 (bcl-2) proto-oncogene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US 07/723,618
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                                                                                                  DB 1; Length 50;
                                                                Indels
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US-08-123-936-374/c
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; INDIVIDUAL ISOLATE:
US-08-123-936-374
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                                                                                                                  US-08-475-228A-374/c
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                                                                                Sequence 374, Application US/08475228A Patent No. 5869241
                                                                Patent No. 5869241
GENERAL INFORMATION:
                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/996,783
EILING DATE: 23-DEC-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/723,618
EILING DATE: 27-JUN-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: (415) 324-0960
INFORMATION FOR SEQ ID NO: 3
SEQUENCE CHARACTERISTICS:
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Andrews, Beth M.
APPLICANT: Turin, Lisa M.
TITLE OF INVENTION: Screening Assay for th
TITLE OF INVENTION: DNA-Binding Molecules
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Fabian, Gary R.
REGISTRATION NUMBER: 33,875
REFERENCE/DOCKET NUMBER: 46
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 324-0880
                APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE: DI
HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                                                              ORIGINAL SOURCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY:
 APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
                                                                                                                                                                                       43 CGGGAGCGCGGCGGC 28
                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH:
                                                                                                                                                                                                       1 cgggagcgcgggcgggc 16
                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                       16;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 50 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USA
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Edwards, Cynthia A. Cantor, Charles R. Andrews, Beth M. Turin, Lisa M.
                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genelabs Technologies, Inc
                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
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                                                                                                                                                                                                                                                                                                                                                                                                                             DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  double
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cynthia A.
                                                  Cynthia A
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(bcl-2) proto-oncogene
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                                                                                                                                  ; Sequence 374, Application US/08482080A ; Patent No. 6010849
                                                                                                                                                                       US-08-482-080A-374/c
                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (415) 324-091
INFORMATION FOR SEQ ID NO:
                                                                                                                    GENERAL INFORMATION:
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MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Sequence-Directed DNA BINGING TITLE OF INVENTION: Molecules, Compositions and Methods NUMBER OF SEQUENCES: 664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 23-DEC-
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: FILING DATE: 06-JUN-PRIOR APPLICATION DATA:
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
                              APPLICANT: Andrews, Beth M. APPLICANT: Turin, Lisa M. APPLICANT: Fry, Kirk E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  HYPOTHETICAL: NO ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE:
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                  APPLICANT: Fry, Kirk E. TITLE OF INVENTION: Seq
                                                                                 APPLICANT:
TITLE OF INVENTION:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
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                                                                                                                                                                                                                                        43 CGGGAGCGCGGCGCC 28
                                                                                                                                                                                                                                                                                                          Local Similarity nes 16; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        50 base pairs
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                                                                                                                                                                                                                                                                                                           Conservative
                                                                                   Cantor, Charles R.
                                                                                                       Edwards,
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Sequence-Directed DNA Binding Molecules, Compositions and Methods
                                                                                                                                                                                                                                                                                                                               100.0%; Score 16; DB 100.0%; Pred. No. 91;
                                                                                                     Cynthia A
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PCT-US93-12388-374/c
; Sequence 374, Application PC/TUS9312388
; GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                 Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: (650) 324-0960 INFORMATION FOR SEQ ID NO: 3
                                                 NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                                  TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE:
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FILING DATE: 23-DEC-1992
PRIOR APPLICATION DATA:
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FILING DATE: 17-SEP-
PRIOR APPLICATION DATA:
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PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 08/171,389
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
ADDITIONATION UNITED DATA:
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PRIOR APPLICATION DATA:
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                  STREET:
                                    ADDRESSEE:
                                                                                                                                                                                                                              43 CGGGAGCGCGGCGC 28
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                                                                                                                                                                                                                                                1 cgggagcgcgggcgggc 16
                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                     INDIVIDUAL ISOLATE: Human B-cell leukemia/lymphoma 2 INDIVIDUAL ISOLATE: (bcl-2) proto-oncogene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 50 base pairs TYPE: nucleic acid STRANDEDNESS: double
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Redwood City
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               505 Penobscot Drive
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                           Genelabs Technologies, Inc
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                                                                           Sequence-Directed DNA Binding Molecules, Compositions and Methods
                                                                                                                                                                                                                                                                                                     100.0%; Score 16; DB 3; Length 50; 100.0%; Pred. No. 91;
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                                                                                                                                                                                                                                                                                   Sequence 30, Application US/08983466
PATENT NO. 6207372
GENERAL INFORMATION:
APPLICANT: SHUBER, ANTHONY P.
TITLE OF INVENTION: UNIVERSAL PRIMER SEQUENCE FOR MULTIPLEX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
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                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                           CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                            TITLE OF INVENTION:
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                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
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ATTORNEY/AGENT INFORMATION:
NAME: Fablan, Gary R.
REGISTRATION NUMBER: 33,8
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
LENGTH: 50 base pairs
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
          APPLICATION NUMBER: FILING DATE: 10-FEF
                                                           SOFTWARE:
                                                                                            COMPUTER:
                                                                                                                                                                          CITY: Palo Alto
STATE: California
CLASSIFICATION:
                                                                         COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                  ZIP:
                                                                                                                                                                COUNTRY:
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FTI.TNG DATE: 17-SEP-1993
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                                                                                                                                                                                                        260 Sheridan Ave., Ste. 440
                                                                                                                                                              USA
                                                      PatentIn Release #1.0, Version #1.30
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(415) 324-0960
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          10-FEB-1998
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100.0%; pr
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                           US/08/983,466
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Pred. No. 91;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Patent No. 5518901
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 28, Application US/08049264C Patent No. 5518901
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REFERENCE/DOCKET NUMBER: GECO.001.01US
TELECOMMUNICATION ITFORMATION:
TELEPHONE: (650) 328-4400
TELEFAX: (650) 328-4477
INFORMATION FOR SEQ ID NO: 30:
                                                                               TELEFAX: (404) 688-9880
INFORMATION FOR SEQ ID NO: 28:
SEQUENCE CHARACTERISTICS:
                                                                                                                            REFERENCE/DOCKET NUMBER: 13
TELECOMMUNICATION INFORMATION:
TELEPHONE: (404) 688-0770
                                                                                                                                                                                                                                                                                  MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy
 MOLECULE TYPE:
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DESCRIPTION:
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                                                                                                                                                                                 NAME: Perryman, David REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                    APPLICATION NUMBER: FILING DATE:
                   TOPOLOGY:
                               STRANDEDNESS:
                                                                                                                                                                                                                                   CLASSIFICATION: 435
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                                                                                                                                                                                                                                                                                                                                                                                                                                    CITY: Atlanta
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STRANDEDNESS: single
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                                                                  LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                     30303
                                               nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                     Georgia
Y: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rae-Venter, Barbara
                                                               21 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Murtagh, James J.
NVENTION: METHODS FOR NUCLEIC ACID DETECTION,
NVENTION: SEQUENCING AND CLONING USING EXONUCLEASE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3: NEEDLE & ROSENBERG, P.C. Suite 1200, The Candler Bldg., 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20 base pairs
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                   linear
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/desc = "Oligonucleotide primer"
DNA (genomic)
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                               single
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92.9%;
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                                                                                                                                                                 1313.001
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Pred. No. 36
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US-08-479-723A-28/c
; Sequence 28, Application US/08479723A
; Patent No. 5744306
; GENERAL INFORMATION:
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                                                                                  RESULT 11
                                                                                                                                                                                                                                                                              ; MOLECULE TYPE: US-08-476-562-28
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APPLICANT: Murtagh, James J.
TITLE OF INVENTION: METHODS FOR NUCLEIC ACID DETECTION,
TITLE OF INVENTION: SEQUENCING AND CLONING USING EXONUCLEASE
                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: (404) 688-9880 INFORMATION FOR SEQ ID NO: 28:
 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 21 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 1313.004
TELECOMMUNICATION INFORMATION:
TELEPHONE: (404) 688-0770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: 08
FILING DATE: April 19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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                                                                                                                                 15 GGGGGGGGGGGC 2
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nes 13; Conserv
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OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                                               TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Perryman, David G. REGISTRATION NUMBER: 33,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION: 435 '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/08/476,562
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                                                                                                                                                    3 ggagcgcggcgggc 16
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                                                                                                                                                                                                                                                                                                                                              nucleic acid
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Suite 1200, The Candler Bldg., 127
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Murtagh, James J.
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                             DNA (genomic)
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92.9%;
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                                                                                                                                                                                           Score 12.4; DB Pred. No. 3e+03; 0; Mismatches
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Pred. No. 3e+03;
0; Mismatches 1;
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PCT-US94-04310-28/c; Sequence 28, Application PC/TUS9404310; GENERAL INFORMATION:
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; MOLECULE TYPE: PCT-US94-04310-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
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                                                                                                                         FILING DATE: 19-APR-1 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                          SOFTWARE: Patentin Release #1.0, Version #1.25 (EPO) CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/04310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: 1: MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 21 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Perryman, David G.
REGISTRATION NUMBER: 33,438
REFERENCE/DOCKET NUMBER: 050
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/049,264
                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION:
                                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                                  TOPOLOGY:
                                                  STRANDEDNESS:
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                       LENGTH:
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                                                  nucleic acid
DEDNESS: single
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Suite 1200, The Candler Bldg., 127
Peachtree Street N.E.
                                                                                     21 base pairs
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                  DNA (genomic)
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                                                                                                                                           19-APR-1993
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92.9%;
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                                                                                                                                                                                                                                                                                                                                    METHODS FOR NUCLEIC ACID DETECTION, SEQUENCING AND CLONING USING EXONUCLEASE
                                                                                                                             28:
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Pred. No. 3e+03;
0; Mismatches 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 7, Application US/08049264C Patent No. 5518901
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LENGTH: 40
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Best Local Similarity
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Best Local :
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FILE REFERENCE: 2379.2.5
CURRENT APPLICATION NUMBER: US/09/677,045
CURRENT FILING DATE: 2000-09-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
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                                                                                                                                             COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Perryman, David G.
REGISTRATION NUMBER: 33,
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
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                                                                                                              FILING DATE:
                                                                                                                              APPLICATION NUMBER:
                                                                                                                                                                                                                                                                             COUNTRY:
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                   REFERENCE/DOCKET NUMBER:
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                                                                                                                                                                                                                                                                30303
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                                                                                                                                                                                                                                                                                                                                                                                                                                 , James J.

METHODS FOR NUCLEIC ACID DETECTION,
SEQUENCING AND CLONING USING EXONUCLEASE
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92.9%;
                                                                                                                                US/08/049,264C
                                  33,438
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                     1313.001
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Pred. No. 2.6e+03;
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TELEPHONE: (404) 688-0770
TELEPAX: (404) 688-9880
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 55 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
US-08-049-264C-7
                   20
                                                                                                                                                             TOPOLOGY: linear; MOLECULE TYPE: DNA (genomic) US-08-476-562-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-476-562-7/c

: Sequence 7, Application US/08476562

: Patent No. 5688669

; GENERAL INFORMATION:
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                                                       Query Match 77.5%; Score 12.4; DB 1; Length 55; Best Local Similarity 92.9%; Pred. No. 2.5e+03; Matches 13; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 435
PRIOR APPLICATION NUMBER: 08/049,264
FILING DATE: APRIL 19, 1993
ATTORNEY/AGENT INFORMATION:
NAME: PETLYMEN, DAVId G.
REGISTRATION NUMBER: 33,438
REFERENCE/DOCKET NUMBER: 1313.004
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 1088-0770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 77.5
Best Local Similarity 92.9
Matches 13; Conservative
                                                                                                                                                                                                                                   TELEFAX: (404) 688-9880
INFORMATION FOR SEQ ID NO: 73
SEQUENCE CHARACTERISTICS:
LENGTH: 55 base pairs
TYPE: nucleic acid
STEANDEDNESS: 6:60-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARR: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
ADDRESSEE: NEEDLE & ROSENBERG, P.C.
STREET: Suite 1200, The Candler Bldg., 127
STREET: Peachtree Street N.E.
CITY: Atlanta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: MULTagh, James J.
TITLE OF INVENTION: METHODS FOR NUCLEIC ACID DETECTION,
TITLE OF INVENTION: SEQUENCING AND CLONING USING EXONUCLEASE
NUMBER OF SEQUENCES: 75
                                                                                                                                                                                          TYPE: ....STRANDEDNESS: SIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STATE: Georgia
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
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92.9%;
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Db 15 GGGGCGCGGCC 2

Search completed: June 28, 2002, 22:16:53 Job time: 8279 sec

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OM nucleic - nucleic search, using sw model
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Maximum DB
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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seq length: 75
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2: /cgn2_6/ptodata/1,
3: /cgn2_6/ptodata/1/
Match
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11.013 Million cell updates/sec
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/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
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/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
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US-08-123-936-300
US-08-475-228A 300
US-08-482-080A-300
PCT-US93-12388-300
PCT-US93-12388-300
PCT-US93-12388-300
PCT-US95-10973A-56
US-08-467-444-15
US-08-602-264A-5
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US-08-461-018A-5
US-08-461-018A-5
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US-09-080-285-15
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US-09-216-958-5
US-09-398-217-1
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US-09-450-656-14
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US-09-499-884-12
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                                                                                                                                      Sequence 55, A
Sequence 300,
Sequence 300,
Sequence 300,
Sequence 300,
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Patent No. 5262866
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Sequence
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Sequence 32,
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Sequence 11, Appl
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Sequence 19, Appl Sequence 19, Appl		Sequence 106, App	Sequence 8, Appli	۰,	Sequence 9, Appril	`	Sequence 5, Appli	Sequence /, Appli	Sequence 5, Appli	Sequence 3, Appli	Sequence 3, Appli	,	, ,	'nΩ

## ALIGNMENTS

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RESULT
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US-08-465-485A-15
                                                                                                                                     TELEPHONE: (408) 436-2070
TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 15:
                                                                                                                                                                                                                                                                                                                                                     FILING LEAST STATE CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/124,256
APPLICATION NUMBER: 20-SEP-1993
                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSITE OF THE PC-DOS/MS-DOS

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/465 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET: 1/25
STREET: 1/25
CITY: Arlington
CTATE: Virginia
T S.A.
                                                                                                                                                                                                                                                                                                   APPLICATE: 20-SEF 1..
FILING DATE: 20-SEF 1..
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/840,716
APPLICATION NUMBER: 21-FEB-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: Regulation of bc1-2 Gene Expression NUMBER OF SEQUENCES: 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                   FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
                                 MOLECULE TYPE:
                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 15 base pairs
TYPE: nucleic acid
                   ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
                                                                                                                                                                                                     REGISTRATION NUMBER: 34, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                        NAME:
                                                                     STRANDEDNESS:
                                                     TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22202
                                                                                                                                                                                                                                      Fortney, Andrew D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1755 S. Jefferson Davis Hwy., Suite 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Reed, John
                                                     linear
                     YES
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                                   DNA (genomic)
                                                                                                                                                                                                                                                                          22-DEC-1988
                                                                     single
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                                                             Matches
                                                                                         Query Match
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                  TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 15:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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                                                                                                                                               TOPOLOGE: TYPE: D
                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/465,485
FILING DATE: 05-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 0: FILING DATE: 21-FEB-1992 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Regulation of bc1-2 Gene Expression NUMBER OF SEQUENCES: 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                      Y Match 100.0%;
Local Similarity 100.0%;
                                                                                                                                                                              TOPOLOGY:
                                                                                                                                                                                           STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 07/288,692 FILING DATE: 22-DEC-1988
              1 cggcggggggacgga 15
                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, ADDRESSEE: P.C. STREET: 1755 S. Jefferson Davis Hwy., Suite 400 CITY: Arlington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Match 100.0%; Score 15; DB 2; Local 5 imilarity 100.0%; Pred. No. 1.2e+02;
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CGGCGGGGCGACGGA 15
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                                                                                                                                                                                                                        15 base pairs
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                                                          Conservative
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SYSTEM: PC-DOS/MS-DOS
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                                                                      Score 15;
Pred. No. 1
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                                                       Mismatches
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                                                                                      Query Match
Best Local Similarity
                                                                          Matches
                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 69 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:

APPLICATION NUMBER: PCT/FR93/0049

FILING DATE: 19-MAY-1993

PRIOR APPLICATION DATA:

APPLICATION NUMBER: FR 92/06123

FILING DATE: 20-MAY-1992

ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 46,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Ploougastel, Beatrice
APPLICANT: Thomas, Gilles
APPLICANT: Thomas, Gilles
APPLICANT: Thomas, Gilles
APPLICANT: DESIGNATION: NUCLEIC ACID CORF
TITLE OF INVENTION: CHROMOSOME 22 INV
TITLE OF INVENTION: TRANSLATIONS ASSC
TITLE OF INVENTION: TRANSLATIONS
TITLE OF INVENTION: TRANSLATIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                    TELEPHONE: 215-875-8383
TELEPAX: 215-875-8394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: AEDIT 1.0 DOS text edito: CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/343,443B FILLING DATE: 18-NOV-1994 CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
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45 CGGCGGGGCAACGGA 59
                          1 cggcggggggacgga 15
                                                                                                                                                                                TOPOLOGY:
                                                                                                                                                                                               STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: 98: ILECOMMUNICATION ----
                                                                                                                                                                                                                                                                                                                                                               NAME: Weiser, Gerard J
REGISTRATION NUMBER: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: AEDIT 1.0 DOS text editor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET: 230 South I
CITY: Philadelphia
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                                                                        14;
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5968734
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                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E: Weiser & Associates
230 South Fifteenth Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            USA
                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Melot,
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Desmaze, Chantal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peter, Martine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Aurias, Alain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Floppy disk
                                                                                    89.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUCLEIC ACID CORRESPONDING TO A GENE OF
CHROMOSOME 22 INVOLVED IN RECURRENT CHROMOSOMAL
TRANSLATIONS ASSOCIATED WITH THE DEVELOPMENT OF CANCEROUS
TUMORS, AND NUCLEIC ACIDS OF FUSION RESULTING FROM SAID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    129
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                                                                                                                                                                                                                                                                                                                                           989.6121P
                                                                                  Score 13.4; DB 2;
Pred. No. 4.6e+02;
                                                                     Mismatches
                                                                                                   Length 69;
                                                                   Indels
                                                                 0;
                                                               Gaps
                                                               0;
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RESULT 4 5262866-3/c ;Patent No. 5262866

APPLICANT: FRITSCH, EDWARD F.; COLLINS, MARY TITLE OF INVENTION: PROCESS AND NUCLEIC ACID CONSTRUCT FOR

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-519-300-2/c
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NUMBER OF SEQUENCES:15
CURRENT APPLICATION DATA:
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Best Local Similarity 92.9
Matches 13; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                               TELEFAX: (212) 838-3884
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: BUUSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/07/938,201 FILING DATE: 11-APR-1986 PRIOR APPLICATION DATA:
                                                                                                                                                 TELEPHONE: (212) 688-9200
                                                                                                                                                                                                                                   APPLICATION NUMBER: DE P 44 30 023.9 FILING DATE: 24-AUG-1994 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: UFILING DATE: 8/23/96 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
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CORRESPONDENCE ADDRESS:
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FILING DATE: 02-MAY-1985
APPLICATION NUMBER: 607,885
FILING DATE: 07-MAY-1984
APPLICATION NUMBER: 684,308
APPLICATION NUMBER: 684,305
APPLICATION NUMBER: 684,305
                 TOPOLOGY: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 20-DEC-1984
APPLICATION NUMBER: 607,885
FILING DATE: 07-MAY-1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16 GGCGGGTCGACGGA 3
                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                              LENGTH: 18 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                   NAME: JOHN A. BAUER
REGISTRATION NUMBER: 32,554
REFERENCE/DOCKET NUMBER: HU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE:
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 DESCRIPTION:
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                                linear
                                                                                                                                                                                                                                                                                                                                                                              PatentIn Release #1.0,
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oligonucleotide
                other nucleic acid
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92.9%;
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US-08-519-300-2
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                                                               US-09-450-656-14/c
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                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 13; Conserv
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Sequence 14, Application US/09450656
Patent No. 6251606
GENERAL INFORMATION:
APPLICANT: HSEU, Ruey-Shyang
                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 13; Conserv
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TELEFAX: 703/685-0573
TELEX: 248425 EMBON
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/002,024B
FILING DATE: 08-JAN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 17,355
REFERENCE/DOCKET NUMBER: BO-
TELECOMMUNICATION INFORMATION:
TELECHONE: 703/521-2297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: MOOI, Frederik R
TITLE OF INVENTION: WHOPPING COUGH VACCINE
NUMBER OF SEQUENCES: 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 08-JAN-1992
ATTORNEY/AGENT INFORMATION:
NAME: PATCH, ROBERT J
REGISTRATION NUMBER: 17,3
                                                                                                                                                                                                                                                                                       MOLECULE TYPE: HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION: 424
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS
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                                                                                                                                20 CGGCGGATCGACGGA 6
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                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER:
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86.78;
                                                                                                                                                                                                            78.7%;
86.7%;
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Pred. No. 2.8e+03;
                                                                                                                                                                                                            Score 11.8; DB 1; Pred. No. 2.7e+03;
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                                                                                                                                                                                               Mismatches
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US-09-499-884-12
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; ORGANISM: Homo sapiens
US-09-150-900-32
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US-09-150-900-32
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LENGTH: 52
TYPE: DNA
ORGANISM: Cordyceps liangshanensis
US-09-450-656-14
                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: St. Clair, Daret
APPLICANT: Urano, Muneyasu
APPLICANT: Kasarskis, Edward
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Liu, Quiang
APPLICANT: Liu, Quiang
APPLICANT: Sommer, Steve S.
TITLE OF INVENTION: BIDIRECTIONAL PCR AMPLIFICATION OF SPECIFIC ALLELES
FILE REFERENCE: Bi-PASA
                                                                                                                                                                                                                                                        Sequence 12, Application US/09499884 Patent No. 6265172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/09/150,900
CURRENT FILING DATE: 1998-09-10
EARLIER APPLICATION NUMBER: 60/058575
EARLIER FILING DATE: 1997-09-11
NUMBER OF SEQ ID NOS: 48
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 32
LENGTH: 30
SEQ ID NO 12
LENGTH: 38
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Best Local 9
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                                                                                        APPLICANT: Urano, Muneyasu
APPLICANT: Kasarskis, Edward
TITLE OF INVENTION: DIAGNOSTIC TEST AND THERAPY FOR MANGANESE SUPEROXIDE DISMUTASE
TITLE OF INVENTION: ASSOCIATED DISEASES
FILE REFERENCE: 50229-180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 78.7
Best Local Similarity 86.7
Matches 13; Conservative
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TITLE OF INVENTION: Gene Sequence and Method for Distinguishing Cordyceps Sinensis
Patent No. 6251606
                                    NUMBER OF SEQ ID NOS: 12
SOFTWARE: PatentIn version 3.0
                                                                           CURRENT APPLICATION NUMBER: US/09/499,884
CURRENT FILING DATE: 2000-02-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILE REFERENCE: 2410-166P
CURRENT APPLICATION NUMBER: US/09/450,656
CURRENT FILING DATE: 1999-11-30
NUMBER OF SEQ ID NOS: 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
les 12; Conserv
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92.3%;
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86.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 11.4; DB 4;
Pred. No. 3.9e+03;
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Pred. No. 2.4e+03;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 4;
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RESULT 11
US-08-171-389-300
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PCT-US95-10973A-55/c
; Sequence 55, Application PC/TUS9510973A
; GENERAL INFORMATION:
; APPLICANT: Prizm Pharmaceuticals, Inc.
; APPLICANT: Prizm Pharmaceuticals, Inc.
; TITLE OF INVENTION: CONJUGATES OF VASCULAR ENDOTHELIAL GROWTH FACTOR WITH TARGE
                                                                                                                                                                                                                                                                                                                                                                               PCT-US95-10973A-55
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                                                                                                   Patent No. 5578444
GENERAL INFORMATION:
                                                                                                                       Sequence 300, Application US/08171389 Patent No. 5578444
                                                                                                                                                                                                                                                                                         Query Match 76.0%;
Best Local Similarity 92.3%;
Matches 12; Conservative
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Best Local (
                                              APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (206) 682-60
INFORMATION FOR SEQ ID NO:
 APPLICANT:
APPLICANT:
TITLE OF INV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDLIM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 76
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: PCT/
FILING DATE: 29-AUG-1995
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWAKE: CURRENT APPLICATION DATA:
CURRENT APPLICATION NUMBER: PCT/US95/10973A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                           27 GGCGGGGGCGGC 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Nottenburg, Carol REGISTRATION NUMBER: 39
                                                                                                                                                                                                                                           2 ggcggggggacgg 14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE:
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nes 12; Conserv
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 I: Fry, Kirk E.
INVENTION: Seq
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                                Edwards, Cynthia A.
Cantor, Charles R.
Andrews, Beth M.
Turin, Lisa M.
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682-6031
NO: 55:
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92.3%;
                                                                                  Cynthia A.
Sequence-Directed DNA Binding
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Pred. No. 3.7e+03;
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Pred. No. 3.7e+03;
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505 Penobscot Drive

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RESULT 12
US-08-123-936-300
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Best Local S
                                                                                                                                                                            Patent No.
                                                                                                                                                                                            Sequence 300, Application US/08123936
                                                                                                                                                                                                                                                                                                                                                             Matches
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 08/081,070
FILING DATE: 22-JUN-1993
ATTORNEY/AGENT INFORMATION:
NAME: Fablan, Gary R.
REGISTRATION NUMBER: 33,875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0:
FILING DATE: 17-SEP-1993
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SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: DN
HYPOTHETICAL: NO
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 33,875
REFERENCE/DOCKET NUMBER: 67
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 324-0880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US 07/996,783 FILING DATE: 23-DEC-1992 PRIOR APPLICATION DATA:
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                                                                                   APPLICANT: Edwards, Cynthia A. APPLICANT: Cantor, Charles R. APPLICANT: Andrews, Beth M. APPLICANT: Turin, Lisa M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 27-JUN-
PRIOR APPLICATION DATA:
                                TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                  CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: STATE OF STREET
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/08/171,389
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                                                                                                                                                                                                                                                                                       31 GCGGGGCGCCGGA 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: nucleic acid
STRANDEDNESS: double
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ADDRESSEE:
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SYSTEM: PC-DOS/MS-DOS
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Genelabs Technologies, Inc
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92.3%;
                                    DNA-Binding Molecules 640
                                                                    Screening Assay for the Detection of
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                                                                                                                                                                                                                                                                                                                                                               0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                Score 11.4; DB 1;
Pred. No. 3.6e+03;
                                                                                                                                                                                                                                                                                                                                                                                                   DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                 Length 45;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Fabian, Gary R.
REGISTRATION NUMBER: 33,875
REFERENCE/DOCKET NUMBER: 4600-0075.32/G19P2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 324-0880
TELEPAX: (415) 324-0980
INFORMATION FOR SEQ ID NO: 300:
SEQUENCE CHARACTERISTICS:
LENGTH: 45 base pairs
TYPE: nucleic acid
Greanmerners: Jouble
                                                                                                                                                                                                                                                                                                                                          Sequence 300, Application US/08475228A Patent No. 5869241
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Best Local
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/
FILING DATE: 27-JUN-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: DN
HYPOTHETICAL: NO
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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COMPUTER READABLE FORM:
MEDLIM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                 APPLICANT: Fry, Kirk E. TITLE OF INVENTION: Sequ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION: 435
                                                                                                                                                                   NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                      TITLE OF INVENTION:
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OPERATING SYSTEM: PC-DOS/MS-DOS
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les 12; Conserv
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                                                                     ZIP:
                                                                                   COUNTRY:
                                                                                                     STATE:
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                                                                                                                                                     ADDRESSEE:
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                                                                                                                   Redwood City
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Turin, Lisa M.
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                                                                                                                                                     Genelabs Technologies, Inc
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                                                                                                                                                                                                      Sequence-Directed DNA Binding Molecules, Compositions and M
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US-08-482-080A-300
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Best Local Similarity
~~+~hes 12; Conserve
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INFORMATION FOR SEQ ID NO: 3
SEQUENCE CHARACTERISTICS:
LENGTH: 45 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                             Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 300,
                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                    COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/0
FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
ADDRESSEE: Genelabs Technologies, Inc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 34,444
REFERENCE/DOCKET NUMBER: 4600-0175.21/G19P3D2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 324-0880
TELEPHONE: (415) 324-0860
TELEPHONE: (415) 324-0960
                                                                                                                                                                                                                                                                     TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HYPOTHETICAL: N
ORIGINAL SOURCE:
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                                                                                                                                                                                                                                                                                                      APPLICANT: Andrews, Beth M. APPLICANT: Turin, Lisa M. APPLICANT: Fry, Kirk E.
                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Edwards, Cynthia A. APPLICANT: Cantor, Charles R.
                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: 1
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PRIOR APPLICATION DATA:
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92.3%;
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Pred. No. 3.6e+03;
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Best Local
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MOLECULE TYPE: I
HYPOTHETICAL: NC
ORIGINAL SOURCE:
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                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/123,936
FILING DATE: 17-SEP-1993
                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
ADDRESSEE: Genelabs Technologies, Inc.
                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
               PRIOR APPLICATION DATA:
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NAME: Brady, John F.
REGISTRATION NUMBER: 39,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 4600-0175.20/G19P3D1 TELECOMMUNICATION INFORMATION:
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APPLICATION NUMBER:
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OS_08/171,389
                                                                            CLASSIFICATION:
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                                                                                                                                                                                                                                                             CITY: Redwood City
STATE: CA
APPLICATION NUMBER:
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92.3%;
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US 07/996,783
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Pred. No. 3.6e+03
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FILING DATE: 23-DEC-1992

ATTORNEY/AGENT INFORMATION:

NAME: Fabian, Gary R.

REGISTRATION NUMBER: 4600-0175.41/G19PCT2

FELECOMMUNICATION INFORMATION:

TELEPHONE: (415) 324-0880

TELEPHONE: (415) 324-0960

INFORMATION FOR SEQ ID NO: 300:

SEQUENCE CHARACTERISTICS:

LENGTH: 45 base pairs

TYPE: nucleic acid

STRANDEDNESS: double

TOPOLOGY: linear

MOLECULE TYPE: DNA (genomic)

ORIGINAL SOURCE:

INDIVIDUAL ISOLATE: Human transferrin (Tf) gene

PCT-US93-12388-300

Query Match
Best Local Similarity 92.3%; pred. No. 3.6e+03;

Matches 12; Conservative 0; Mismatches 1; Indels

Qy 3 gcggggcgacgga 15

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Search completed: June 28, 2002, 22:16:52
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8. /SIDS1/gcydata/geneseq/geneseqn-embl/NA1987.DAT:*

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ARA0334 AAF90232 AAF30580 ABA03342 AAD14353 AAD46088 AAD69550 AAT64012 AAX17300 AAT64012 AAX17300 AAH90447 AAH90447 AAH90447 AAH90447 AAH7374 AAF20928 AAF70928 AAF8000856 ABK01877 ABK01877 ABK01574	AAV52818 AAA55227 AAX395998 AAL34175 AAH38708 AAS08614 AAS08614 AAC03244
Genomi Human Sequer Mycami Human Synthe	Oligo Cenar Polyn Human Human Cordy Human
Genomic walking pr Genomic walking pr Human COMT gene PC Streptomyces chrys Human manganese su Synthetic primer 4 Human transferrin Human Tecell recep Test sequence from Human map-related Human spe oligonuc Human clone cg4394 Human clone cg4394 Multiplex short-PC Human PK-506 bindi Human NGO Inozymee Human NGO Inozymee Human NGO G-Cleav Human NGO G-Cleav Human NGO G-Cleav Human Sme Jlasminogen Polymorphic fragme Polymorphic fragme Sequence of primer Mycaminose biosynt Human SNP oligonuc Synthetic DNA for	nucleotide chaeum sym ucleotide SNP oligc SNP flank ceps liang secreted

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## ALIGNMENTS

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AA086657
                                                                                                                                                                                                                                       RESULT
                                                                                                                                     Synthetic.
                                                                                                                                                   Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy; lymphoma; programmed cell death; ss.
                                                                                                                                                                                                                       AAQ86657 standard; DNA; 15 BP.
                                                                  30-MAR-1995.
                                                                                                               misc_feature
                                                                                                                                                                           Bcl-2 antisense oligonucleotide.
                                                                                                                                                                                          27-SEP-1995 (first entry)
                                                                                                                                                                                                          AAQ86657;
                                                   20-SEP-1994;
                                                                                 W09508350-A.
       Reed JC;
                    (REED/) REED J C.
                                     20-SEP-1993;
                                                                                                                                                                                                                                       ш
                                     93US-0124256
                                                   94WO-US10725
                                                                                                               Location/Qualifiers 1..15
                                                                                                /*tag= a
/note= "3′-5′ (antisense) sequence"
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RESULT
AAV28179
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                 reversibly binds a target oligonucleotide, and comprises a sequence of bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative diseases, for treating a non-pathogen, non-hyperproliferative disease, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic
                                                                                                                                 AAV28155-268 represent oligonucleotides which can be purified using method of the invention. The specification describes a matrix that comprises a support and an affinity unit that specifically and
                                                                                                                                                                                                                                    Matrix for selective separation of oligo:nucleotide - useful e.g. large scale purification of anti-sense agents from their
                           pathogen,
                                                                                                                                                                                              Disclosure; Page 84; 183pp; English.
                                                                                                                                                                                                                           deletion
                                                                                                                                                                                                                                                                                  WPI; 1998-362922/31
                                                                                                                                                                                                                                                                                                               Chen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                        (ISIS-)
                                                                                                                                                                                                                                                                                                                                                                    19-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                             18-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     W09827425-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         affinity purification; antisense; bcl-2; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Purification;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antisense oligonucleotide to bcl-2 mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            programmed cell death (DNA fragmentation) in the human lymphoma cell line RS11846. The oligonuclectides are phosphodiesters targeted against the translation initiation site (AAQ86650-55) or the 5'-cap region (AAQ86656-58) of human bcl-2 pre-mRNAs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAV28179;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAV28179 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Antisense oligonucleotides were tested for their ability to induce programmed cell death (DNA fragmentation) in the human lymphoma cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 12; Page 33; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Anti-code oligomers which bind to bcl-2 mRNA - for the treatment of human solid tumours, esp. breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 cggcggggggacgga 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 cggcggggggacgga 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15; Conser
                                                                                                                                                                                                                                                                                                                                        ISIS PHARM INC
                                                                                                                                                                                                                                                                                                            Cole DL,
                                                                                                                                                                                                                           derivatives
                           retrovirus or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    oligonucleotide; matrix; affinity unit;
                                                                                                                                                                                                                                                                                                                                                                    96US-0769951
                                                                                                                                                                                                                                                                                                                                                                                             97WO-US23284
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                                                                                                                                                                                                                                                                                                            Srivatsa GS;
                                                                                                                                                                                                                          formed
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                           other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9 G;
                                                                                                                                                                                                                       during synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                         viruses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 15;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 16;
. 4.8e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                   useful for,
                                                                               for treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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                                                                                                                                                                  the
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Sequence 15

BP; 2 A;

4 C;

9 G;

0 U; 0 other;

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Score

15;

DB 20;

Length 15

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best
                                                                                                                                                                                                      This invention describes a novel composition comprising a number of sensor arrays, where each array comprises a unique probe oligonucleotide, which is the reverse complement of part of a unique target oligonucleotide present in a mixture of target deletion sequence oligonucleotides. The compositions form a method for characterizing a sample of target deletion oligonucleotides which are labelled and hybridize with the probe oligonucleotides of the sensor arrays. Such oligonucleotides and their targets are represented in AAX23548-X23709. Oligonucleotides characterized by the method form pharmaceutical
                                            retrovirus, including influenza virus, Epstein-Barr virus, Respiratory Syncytial Virus or cytomegalovirus (CMV). The compositions enable characterization of deletion sequence oligonucleotides having related, but different nucleobase sequences, and quantification of different species of deletion sequence ("target") oligonucleotides in a mixture. Also, if the specificity of the oligonucleotide's nucleobase sequence for its reverse complement is not modified, the method may be performed.
Sequence
                                                                                                                                                              proliferation, and being active against a eukaryotic pathogen, a human retrovirus, a human immunodeficiency virus (HIV), or a non-human
                                                                                                                                                                                                                                                                                                                                                                                                                         New compositions comprising sensor arrays made up of unique probe oligonucleotides - useful for characterizing a sample of target
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1999-205198/17.
                                using
                                                                                                                                                                                                compositions that are useful for modulating cellular adhesion or
                                                                                                                                                                                                                                                                                                                                                                           Example 9; Page 152; 163pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HIV; primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Deletion sequence oligonucleotide; sensor array; eukaryotic pathogen; probe; cellular adhesion modulator; cellular proliferation modulator; human retrovirus; human immunodeficiency virus; non-human retrovirus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO9911820-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Deletion sequence oligonucleotide 144.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-JUN-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAX23691 standard; DNA; 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Н
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                                 oligodeoxynucleotides.
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   15
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                                                                                                                                                                                                                                                                                                                                                                                                           oligonucleotides
   B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97US-0923771.
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 4 C;
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Pred. No. 4.8e+02;
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 other;
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100.0%;

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RESULT
AAX18700
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                                                                                                                                                                 deficiency virus (HIV)), inflammation, in human or animal medicine; (41) to investigate the role of a gene or gene product in non-human animals; and (411) to modulate gene expression in cells, tissues or organs. The compositions provide bioavailability of at least 15, preferably 17-35.%. The penetration enhancer improves: (i) transport of the nucleic acid across the mucosa of the alimentary canal and into cells; and (41) increases stability of the nucleic acid. Oral administration avoids the complications and expense of intravenous or other methods of administration. AAX1869 to AAX18799 and AAX18801, represent antisense oligonucleotides which can be used as the nucleic acid in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cellular adhesion protein; proliferation; antisense oligonucleotide; alimentary canal; transport; gastrointestinal mucosa; cancer; Alzheimer's disease; beta-thalassemia; malaria; viral infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Composition comprising nucleic acid and penetration enhancer - use particularly for delivering therapeutic antisense oligonucleotides across the gastrointestinal mucosa, provides high bioavailability
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Target bcl-2 antisense oligonucleotide #32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAX18700 standard; DNA; 15
                                                                                                                                                                                                                                                                                                                                           nucleic acid and at least one penetration enhancer. The compositions used: (i) to treat or prevent any disease or disorder that can be treated with the nucleic acid, e.g. cancer, Alzheimer's disease, beta-thalassemia, malaria, viral infections (including human immune
                                                                                                                                                                                                                                                                                                                                                                                                           A pharmaceutical composition has been developed which comprises
                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 2; Page 86; 115pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1999-106077/09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hardee G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUL-1998;
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                                                                                                                                      Sequence 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              inflammation; ss
           cggcggggcgacgga 15
                                                             . Similarity
15; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Teng C;
                                                                                                                                          BP; 2 A; 4 C; 9 G; 0 U; 0 other;
                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97US-0886829
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                                                                         100.0%;
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                                                             0,
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); Mismatches 0;
                                                                            Score 15; DB 20;
Pred. No. 4.8e+02;
                                                                Mismatches
                                                                0
                                                                                             Length 15;
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                                                                Indels
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                                                               Gaps
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RESULT 5
AAV41907/c
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                                                                                                          AAX35957
                                                                                                                           RESULT
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                                                                                                                                                                                                                                                     Query Match
Best Local :
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                                                                                                                                                                                                                                                                                                                                                            This is the nucleotide sequence of a PCR primer used in the amplification of the human haematopoietic signalling factor (HSF), in the method of the invention. The process involves the use of HSF to develop products for the diagnosis and treatment of haematopoietic disorders. The HSF polypeptides can be used for modulating haematopoietic activities. The products can be used for treating e.g. leukaemias, lymphomas, Hodgkin's disease or non-Hodgkin's lymphomas. They can also be used for treating acute or chronic inflammation. They can also be used for modulating the development of haematopoietic stem cells. The products can also be used for modulating the development of haematopoietic stem cells. The products can also be used for modulating the development of haematopoietic stem cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Isolated haematopoietic signalling factor - used to develop products for diagnosis and treatment of, e.g. haematopoietic disorders such as leukaemia and acute or chronic inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nucleotide sequence of HSF PCR primer 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9831792-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             leukaemia; lymphoma; Hodgkin's disease; non-Hodgkin's lyn
acute inflammation; chronic inflammation; haematopoietic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 1; Page 36; 72pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1998-427558/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ruben SM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (HUMA-) HUMAN GENOME SCI INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-JAN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-JAN-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               human; haematopoietic signalling factor; HSF; haematopoietic disorder;
leukaemia; lymphoma; Hodgkin's disease; non-Hodgkin's lymphoma;
                                                                                                                                                                                                                                                                                                                 Sequence 29
5' primer used to amplify germline V gene segment DPK9
                              15-JUL-1999 (first entry)
                                                             AAX35957;
                                                                                           AAX35957 standard; DNA; 71
                                                                                                                                                                          16
                                                                                                                                                                                          1 cggcggggggacgg 14
                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                drug
                                                                                                                           6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           primer; amplification; ss.
                                                                                                                                                                          CGGCGGGTCGACGG
                                                                                                                                                                                                                                       13;
                                                                                                                                                                                                                                                                                                                                                  screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Soppet DR;
                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97US-0035577.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US00854
                                                                                                                                                                                                                                                                                                                      3 A;
                                                                                                                                                                                                                                                        82.7%;
92.9%;
                                                                                                                                                                                                                                                                                                                      17 C; 6 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29 BP
                                                                                                ВP
                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                          Score 12.4; DB 19;
Pred. No. 6.4e+03;
                                                                                                                                                                                                                                                                                                                      3 T; 0 other;
                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                       Length 29;
                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                           Gaps
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RESULT
AAX35961
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                                                                                                                                                                                                                                                                                                                                                                                                                                               The specification describes a method for screening for functional polypeptides which bind a ligand. The method comprises contacting a repertoire of polypeptides with a generic ligand, and then screening selected functional polypeptides with a target ligand. The method permits the removal from a chosen repertoire of polypeptides, those which are non-functional, e.g. as a result of the introduction of frame-shift mutations, stop codons, folding mutants or expression mutants which would be or are incapable of binding to any target ligand. The method also permits the enrichment of a chosen repertoire of polypeptides for those polypeptides which are functional, well folded and highly expressed. The polypeptides which are functional, well folded changestic prophylactic and therapeutic procedures. PCR primers AAX35957-58 were used to amplify a germline V gene fragment, which was used in the construction of libraries of the invention.
                                                                                                                                                                                                                                                                                                                                                                                       Query Match
           20-OCT-1998;
                                      29-APR-1999
                                                               W09920749-A1
                                                                                          Synthetic
                                                                                                                  enrichment; single chain
                                                                                                                                Screening;
                                                                                                                                                    5' primer used to amplify germline V gene segment DPK9#.
                                                                                                                                                                                     15-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-NOV-1997;
20-OCT-1997;
13-NOV-1997;
                                                                                                                                                                                                                AAX35961;
                                                                                                                                                                                                                                       AAX35961 standard; DNA; 71 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 71 BP; 12 A; 17 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Screening for functional polypeptides which bind a ligand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tomlinson I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (MEDI-) MEDICAL RES COUNCIL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO9920749-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Screening; functional polypeptide; ligand; non-functional; enrichment; single chain antibody; PCR primer; ss.
                                                                                                                                                                                                                                                                                                        40 ggcgggtcgacgga
                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                                                                                                                                                                                    2 ggcggggcgacgga 15
                                                                                                                                                                                                                                                                   7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1999-288302/24.
                                                                                                                                                                                                                                                                                                                                                               l Similarity
13; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Page 50; 67pp; English.
                                                                                                               functional polypeptide;
; single chain antibody;
                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Winter G;
         98WO-GB03135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97US-0066729.
97GB-0022131.
97US-0065428.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-GB03135
                                                                                                                                                                                                                                                                                                         53
                                                                                                                                                                                                                                                                                                                                                                       82.7%;
92.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                           33 G; 9 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                          Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                     Score 12.4;
                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                ligand; non-functional; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                      5.7e+03;
                                                                                                                                                                                                                                                                                                                                                                                     DB
                                                                                                                                                                                                                                                                                                                                                                                    20;
                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       well folded
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                         WPI; 1993-260156/33.
                                                                                                                                08-JAN-1992;
                                                                                                                                                           08-JAN-1993;
                                                                                                                                                                                                                                               Bordetella pertussis
                                                                                                                                                                                                                                                                          vaccine; whooping cough; immune response;
B. bronchiseptica; polymerase chain react
                                                                                                                                                                                                                                                                                                      N-terminal; minor; fimbrial subunit; B. pertussis; fimbriae;
                                                                                                                                                                                                                                                                                                                                     fimD primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                           AAQ48034 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        which are non-functional, e.g. as a result of the introduction of frame-shift mutations, stop codons, folding mutants or expression mutants which would be or are incapable of binding to any target ligand. The method also permits the enrichment of a chosen repertoire of polypeptides for those polypeptides which are functional, well folde and highly expressed. The polypeptides obtained can be used in diagnostic, prophylactic and therapeutic procedures. PCR primers AAX35960-61 were used to amplify a germline V gene fragment, which was used in the construction of libraries of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-NOV-1997;
20-OCT-1997;
13-NOV-1997;
                                                                        Mooi FR;
                                                                                                 (NEWE-) NEDERLANDEN MIN WELZIJN
                                                                                                                                                                                          18-AUG-1993.
                                                                                                                                                                                                                      EP555894-A.
                                                                                                                                                                                                                                                                                                                                                                    08-FEB-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The specification describes a method for screening for functional polypeptides which bind a ligand. The method comprises contacting a repertoire of polypeptides with a generic ligand, and then screening selected functional polypeptides with a target ligand. The method permits the removal from a chosen repertoire of polypeptides, those which are presented to provide the selected functional polypeptides with a target ligand. The method permits the removal from a chosen repertoire of polypeptides, those
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 2; Page 50; 67pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Screening for functional polypeptides which bind a ligand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1999-288302/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (MEDI-) MEDICAL RES COUNCIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  40 ggcgggtcgacgga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 ggcggggcgacgga 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BP; 12
                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                92EP-0200038
                                                                                                                                                           93EP-0200047.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Winter G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97US-0066729.
97GB-0022131.
97US-0065428.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; 17 C; 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        82.7%;
92.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                           24
                                                                                                                                                                                                                                                                                                                                                                                                                           ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 12.4; DB 20;
Pred. No. 5.7e+03;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 G; 9 T; 0 other;
                                                                                                                                                                                                                                                                            reaction;
                                                                                                                                                                                                                                                                                     B. parapetussis; PCR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                      FimD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    well folded
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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Vaccines against whooping cough - contains functional component of fimbriae of B. pertussis and can also be used in veterinary

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RESULT
AAV52817
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The sequences given in AAQ48034-35 are primers which were used to amplify the DNA encoding the minor fimbrial subunit of B. pertussis fimbrial (FimD). Plasmid pRIP504 was used as the template and the amplification product was inserted into the BamHI/XbaI site of the pUCBM21 polylinker to give pRIP640. FimD and its corresponding DNA may be used to produce a vaccine against whooping cough. It may induce an effective immune response against all B. pertussis strains esp. B. parapetussis, the second most important causative agent of whooping cough. The vaccine may also be used to protect against B.
         The present invention describes a method of obtaining pluripotent cells containing foreign chromosomes or their fragments (preferably at least 670 kb in length, especially more than 1000 kb) by preparing cancerous cells containing the foreign chromosomes or fragments, then fusing these with pluripotent cells such as embryonic stem cells, embryonic reproductive cells, embryonic cancer cells or their mutants. Also described are: (1) a method of obtaining hybridoma cells by fusing a cell with a high ability to produce hybridoma cells (such as mouse A9 cells) with a cell containing the foreign chromosomes or fragments (such
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example; Page 6; 25pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      applications
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Oligonucleotide #1 from WO9837757 Example 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAV52817;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   bronchiseptica infections.
                                                                                                                                                                                              Pluripotent cells containing foreign chromosomes or fragments - and non-human chimeric animals constructed using them and expressing foreign genes such as human antibiotic genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAV52817 standard; DNA;
as normal human diploid cells);
                                                                                                                                                                   Example 48; Page 90; 217pp; Japanese.
                                                                                                                                                                                                                                                               WPI;
                                                                                                                                                                                                                                                                                           Hanaoka
                                                                                                                                                                                                                                                                                                                        (KIRI ) KIRIN BEER KK.
                                                                                                                                                                                                                                                                                                                                                        28-FEB-1997;
                                                                                                                                                                                                                                                                                                                                                                                     02-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                    03-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO9837757-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             construction;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pluripotent cell; intrinsic gene; chimeric non-human animal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20 CGGCGGATCGACGGA 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 cggcggggggacgga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                               1998-480821/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                            <u>~</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                           Ishida I,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human;
                                                                                                                                                                                                                                                                                                                                                        97JP-0062309
                                                                                                                                                                                                                                                                                                                                                                                       98WO-JP00860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 A; 7 C; 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           78.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antibiotic gene; cancer cell; embryonic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           English.
                                                                                                                                                                                                                                                                                            Oshimura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>ი</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 11.8;
Pred. No. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                            ĭ
(2) a method of utilising pluripotent
                                                                                                                                                                                                                                                                                            Tomizuka K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .2e+04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14;
                                                                                                                                                                                                                                                                                              Yoshida
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24;
                                                                                                                                                                                                                                                                                            Ξ
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RESULT 1
AAV52818/
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Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
       The present invention describes a method of obtaining pluripotent cells containing foreign chromosomes or their fragments (preferably at least 670 kb in length, especially more than 1000 kb) by preparing cancerous cells containing the foreign chromosomes or fragments, then fusing these with pluripotent cells such as embryonic stem cells, embryonic reproductive cells, embryonic cancer cells or their mutants. Also described are: (1) a method of obtaining hybridoma cells by fusing a cell with a high ability to produce hybridoma cells (such as mouse A9 cells) with a cell containing the foreign chromosomes or fragments (such as normal human diploid cells); (2) a method of utilising pluripotent cells to produce chimeric and transgenic non-human animals (especially mammals such as mice) which can express the foreign chromosomes or fragments introduced; and (3) chimeric animals, their offspring and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   fragments introduced; and (3) chimeric animals, their offspring and tissues and cells derived from the offspring produced by a method as in (2). The inventions can be used for the production of monoclonal antibodies for medical use which are of human type and therefore not antipenic in humans. They can also be used in the production of chimeric and transgenic animals which express useful foreign proteins, or which can serve as models for the study of human diseases. ANV5275 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cells to produce chimeric and transgenic non-human animals (especially
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Oligonucleotide #2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAV52828 are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mammals
                                                                                                                                                                                                                                                                                                                                                      WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pluripotent cell; intrinsic gene; chimeric non-human animal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAV52818;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAV52818 standard; DNA; 36
                                                                                                                                                                                                                                                                                                 pluripotent cells containing foreign chromosomes or fragments - and non-human chimeric animals constructed using them and expressing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          03-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO9837757-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PCR primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-NOV-1998
                                                                                                                                                                                                                                                     Example 48;
                                                                                                                                                                                                                                                                                                                                                                                        Hanaoka K,
                                                                                                                                                                                                                                                                                                                                                                                                                      (KIRI ) KIRIN BEER KK
                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-FEB-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               construction;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 cggcggggcgacgga 15
| |||| |||||||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ccgcgggtcgacgga
                                                                                                                                                                                                                                                                                                                                                      1998-480821/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    l Similarity
13; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         such as mice) which can express the foreign chromosomes or
                                                                                                                                                                                                                                                                                   genes such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       36 BP; 7
                                                                                                                                                                                                                                                                                                                                                                                      Ishida I,
                                                                                                                                                                                                                                                     Page 90; 217pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PCR primers used in examples from the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               human; antibiotic gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           97JP-0062309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-JP00860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; 12 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                from WO9837757 Example 48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       78.7%;
86.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                     human antibiotic
                                                                                                                                                                                                                                                                                                                                                                                         Oshimura M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11 G; 6 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 11.8; DB 19
Pred. No. 1.2e+04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                           Tomizuka K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
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offspring
by a metho
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36;
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        Matches
                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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Best Local
                                                                                                                                                                                          and proteins isolated from the non-thermophilic crenarchaeote cenarchaeum symbiosum. The nucleic acids and proteins identified in the present invention are useful in characterising the physiology of these archae and can be used in therapeutic, industrial or laboratory techniques. AAA5527 to AAA55260 represent promoter sequences from Cenarchaeum symbiosum. AAA55261 to AAA55269 represent PCR primers and probes used in examples from the present invention
                                                                                                                                              Sequence 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New nucleic acids and proteins isolated from the non-thermophilic crenarchaeote Cenarchaeum symbiosum, useful in characterizing the physiology of these archae and in therapeutic, industrial or laboratory
                                                                                                                                                                                                                                                                                                                                                                                       AAA55186 to AAA55226 and AAY90913 to AAY90951 represent nucleic acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 8; Page 201; 210pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Swanson RV,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (DIVE-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-SEP-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200018909-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cenarchaeum symbiosum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  promoter; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         characterisation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cenarchaeum symbiosum;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cenarchaeum symbiosum promoter nucleotide sequence SEQ ID NO:81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAA55227 standard; DNA; 40 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 36 BP; 5 A; 12 C; 13 G; 6 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (2). The inventions can be used for the production of monoclonal antibodies for medical use which are of human type and therefore not antiponic in humans. They can also be used in the production of chimeric and transgenic animals which express useful foreign proteins, or which can serve as models for the study of human diseases. ANY52755 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAV52828 are PCR primers used in examples from the present invention.
                               Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000-293148/25
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        l Similarity
13; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DIVERSA CORP.
                                                                                                                                              B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Feldman RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98US-0102294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US22752.
                                                                                                                                           8 A; 8 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   archae; therapeutic; industrial; laboratory;
                               78.7%;
86.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            78.7%;
86.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             non-thermophilic; crenarchaeote; physiology,
                                                                                                                                  15 G; 9 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Schleper C;
  0,
                             Score 11.8; DB 2: Pred. No. 1.1e+04
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Pred. No. 1
  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.2e+04;
                                                       DB 21;
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  2;
                                                    Length
  Indels
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                                                          40;
  0,:
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0;
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1 cggcggggggacgga 15

RESULT 13 AAL34175/c

AAL34175 standard; DNA; 50 BP.

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cggcggtgcggcgga 36

QУ

1 cggcggggggacgga 15

Matches

Conservative

0;

Mismatches

Indels

0

Gaps

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AAZ95998
                                                       Query Match
                                                                                                                                                                                                       sequence flanking the binding site; (ii) exposing the duplex to a ligand selective for the binding site; (ii) isolating duplexes which bind or do not bind the ligand, and (iv) determining the nucleotide composition of the flanking duplex sequence by sequencing the duplex sequence adjacent to the binding site. The invention is used to modulate the ligand-binding characteristics of any nucleotide sequence. The invention is less costly and more efficient than prior art techniques that moderate ligand binding using small molecule pharmaceuticals. Sequences AA295762-296170 represent polynucleotide sequences including the binding site for the restriction enzyme BamHI and used in the course of the
                                                                                                                                  Sequence 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        characteristics of an adjacent binding site. The method comprises:
(i) providing a number of different duplex polynucleotides, each having the same polynucleotide ligand binding site and a randomly synthesised
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention provides a method for determining the sequence of polynucleotide flanking regions that modulate ligand binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Modulating polynucleotide ligand binding site affinity using determination of the flanking duplex sequences -  \\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-JUN-1998;
03-JUN-1999;
                                                                                                                                                                                         invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 1; Page 41; 62pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-JUN-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ligand binding;
pharmaceutical;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Polynucleotide sequence including binding site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-APR-2000 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAZ95998;
Local Similarity
nes 13; Conserv
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                                                                                                                                  BP; 3 A;
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99US-0324672.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             restriction enzyme; nucleic acid determination; \mathtt{BamHII}; \ \mathtt{ss} .
                           78.7%;
86.7%;
                                                                                                                                  10
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                                                                                                                                  ç;
                                                                                                                                  21 G;
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                              Pred. No.
                                               Score 11.8;
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                                                                                                                                  Η,
                                                                                                                                  0 other;
                           1.1e+04;
                                                 DB 21;
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                                                 Length 40;
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AAH38708/c
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                                                                                                            RESULT 14
                                                                                                                                                                                                                                  Matches
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Best Local
   14-AUG-2001
                                       AAH38708;
                                                                   AAH38708 standard; DNA; 51 BP
                                                                                                                                                                                                                                                                                                                                                         systemic lupus erythromatosus and Grave's disease), inflammation, cancer (e.g. cancers of the bladder, brain, breast, colon and kidney, leukaemia), diseases of the nervous system and an infection of pathogeni
                                                                                                                                                                                                                                                                                                                                                                                                             by them may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate expression of the proteins listed above. Disorders that may be prevented, diagnosed and/or treated include multifactorial diseases with a genetic component, such as autoimmune diseases (e.g. rheumatoid arthritis, multiple sclerosis, diabetes,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   proteins, cytochromes, kinesins, cytokines, interferons, interleukins, 6-protein coupled receptors and thioesterases. The present sequence is one such oligonucleotide. The oligonucleotides and the peptides encoded
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention relates to oligonucleotides encoding polymorphic variants of proteins related to amylases, amyloid proteins, angiopoietin, apoptosis related proteins, cadherin, cyclin, polymerase, oncogenes, histones, kinases, colony stimulating factors, complement related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; Page 3511; 4143pp; English.
                                                                                                                                                                                                                                                                                                                      Sequence 50 BP; 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Polymorphic nucleic acids encoding e.g. amylases, cyclins, polymerases, oncogenes and histones, useful for diagnosing and treating, e.g. cancer, autoimmune diseases and infections -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-465210/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-DEC-1999; 99US-0173419
27-DEC-2000; 2000US-0173419
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (CURA-) CURAGEN CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-DEC-2000; 2000WO-US35498
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      multifactorial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nervous system disease; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Immunosuppressive; immunostimulatory; antiinflammatory; cytostatic; neuroprotective; antimicrobial; gene therapy; vaccine; amylase; cancer; amyloid protein; angiopoletin; apoptosis related protein; cadherin; cyclin; polymerase; oncogene; histone; kinase; colony stimulating factor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         complement related protein; cytochrome; kinesin; cytokine; interferon; interleukin; G-protein coupled receptor; thioesterase; inflammation; multifactorial disease; autoimmune disease; infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human SNP oligonucleotide #7383.
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                                                                                                                                                           39 CGCCGGGGCTACGGA 25
                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                        1 cggcggggggacgga 15
                                                                                                                                                                                                                              Conservative
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Leach M;
                                                                                                                                                                                                                                                                                                                    A;
                                                                                                                                                                                                                                             78.7%;
86.7%;
                                                                                                                                                                                                                                                                                                                    15
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                                                                                                                                                                                                                                                                                                              16 G; 9 T; 0 other;
                                                                                                                                                                                                                                             Score 11.8;
Pred. No. 1
                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                             1.1e+04;
                                                                                                                                                                                                                                                            DB 22;
                                                                                                                                                                                                                                                          Length 50;
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                                                                                                                                                                                                                                                                                                                                                       of pathogenic
                                                                                                                                                                                                                      Gaps
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20 CGGCGGGGAGAGGA

o

1 cggcggggggacgga 15

Matches Best Query Match

Local Similarity

78.7%; 86.7%;

Score 11.8; Pred. No. 1 Mismatches

.1e+04; DΒ 22;

Length 51; Indels

of

0;

Gaps

0;

Conservative

0;

AAS08614/c

AAS08614 standard; DNA; 52 BP

AAS08614

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agammaglobulinaemia, diabetes insipidus, Lesch-Nyhan syndrome, muscular dystrophy, familial hypercholesterolaemia, polycystic kidney disease, osteogenesis imperfecta and acute intermittent porphyria. Phenotypic traits also include symptoms of or susceptibility to multifactorial disease of which a component is or may be genetic such as autoimmune diseases, including, rheumatoid arthritis, multiple sclerosis, including, rheumatoid arthritis, multiple sclerosis, pathogenic inflammation, cancer, nervous system diseases and infection by pathogenic microorganism. The method is also useful in forensic investigations and paternity analysis. The present sequence represents a fragment of human DNA flanking the site of a single nucleotide polymorphism.
                                                                                                                                                                                                                                                                                                                                                                                                                             Sequences AAH37205 - AAH40944 represent PCR primers, single nucleotide primer extension (SNPE) primers, and the sequences of regions flanking sites of single nucleotide polymorphisms SNPs. The present invention includes kits for determining the presence or absence of a SNP, using the Oligonucleotides of the invention. The PCR primers are used to amplify a SNP flanking sequence, the SNPE primer is used as a genotyping primer. The oligonucleotides are useful for genotyping a nucleic acid sample by performing a single-nucleotide primer extension reaction. The oligonucleotides are useful for determining the presence, absence of coligonucleotides are useful for determining the presence, absence of the oligonucleotides are useful for determining the presence, absence of the oligonucleotides are useful for determining the presence, absence of the oligonucleotides are useful for determining the presence, absence of the oligonucleotides are useful for determining the presence, absence of the oligonucleotides are useful for determining the presence.
Sequence 51 BP; 8 A; 25 C; 5 G; 13 T; 0 other;
                                                                                                                                                                                                                                                                                                                         identity of a SNP and for genotyping nucleic acid samples, for e.g. to assess by association analysis the genotype of an individual or group conditional having a pathological phenotypic trait suspected of being caused by one or more SNPs. Phenotypic traits include diseases e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 57; 83pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New genotyping oligonucleotide, useful for detecting the presence, absence or identity of single polynucleotide polymorphism in a nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Single nucleotide polymorphism; SNP; single nucleotide primer extension; SNPE; genotyping; agammaglobulinaemia; diabetes insipidus; cancer; Lesch Nyhan Syndrome; muscular dystrophy; familial hypercholesterolaemia; polycystic kidney disease; osteogenesis imperfecta; autoimmune disease; acute intermittent porphyria; rheumatoid arthritis; multiple sclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-290930/30.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Picoult-Newburg L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-OCT-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human SNP flanking oligonucleotide SEQ ID 1504.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (ORCH-) ORCHID BIOSCIENCES INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13-OCT-2000; 2000WO-US28436.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    inflammation; forensic investigation; paternity analysis; ds
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Search completed: June 28, 2002, 22:40:19 Job time: 8095 sec
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                                                                     B
                                                                                                                        Query Match 78.7%;
Best Local Similarity 86.7%;
Matches 13; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                       (HSEU/) HSEU R.
(LOSS/) LO S.
(WANG/) WANG S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cordyceps liangshanensis 18s rRNA gene fragment #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cordyseps liangshanenesis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18s rRNA; NS5/6; Chinese medicine; CC1014ab; ds.
                                                                                                                                                                                                                   The sequence represents part of the C. liangshanensis 18s rRNA gene between primer pair NS5/6. This sequence is unique to isolate CC1014ab. The sequences of the invention are useful as an index for distinguishing C. sinensis from other Cordyceps species, particularly for use in chinese medicine and health supplements where only a genuine C. sinensis strain contains the active therapeutic agent.
                                                                                                                                                                                                                                                                                                                                          New gene sequences, particularly the 18S rRNA gene sequence of the Cordyceps sinensis between NS3/NS6 primer pair, useful as the index for distinguishing C. sinensis from other Cordyceps species \,
                                                                                                                                                                                                                                                                                                                                                                                                                              Hseu R, Chen C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-JUN-2001.
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                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-431962/46.
                                                                                                                                                                                          Sequence 52 BP; 5 A; 16 C; 17 G; 14 T; 0 other;
                                                                                                                                                                                                                                                                                                                 Disclosure; Fig 5; 20pp; English.
                                                                    29 CGGCGGGCCGCCGA 15
                                                                                           1 cggcgggggggacgga 15
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                                                                                                                              0;
                                                                                                                              Score 11.8; DB 22; pred. No. 1.1e+04; 0; Mismatches 2;
                                                                                                                                                        Length 52;
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Result
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Maximum DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                   Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
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seq length:
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Gapop 10.0 , Gapext 1.0
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AAQ86649
AAV19651
AAV19657
AAD15276
AAD12300
AAD12301
AAF77808
AAF77809
AAQ49816
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                Human bcl-2 antise
Human bcl-2 transc
Human bcl-2 mRNA
t AM-TIS sulphate
Bcl2-TIAS sulphate
BCL-2 antisense old
Bcl1-3 attisense old
                                                                                                                                                                                                                                                                                                            Description
                                                                                                                                                                                                                                                  Bcl-2 translation
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16 80.0 17 19 AAV19660 17 19 AAV19660 18 79.0 15 22 AAD15281 18 75.0 15 22 AAD15282 14 70.0 36 22 AAF84516 13.8 69.0 50 22 AAF84516 13.6 68.0 27 17 AAT18388 13.6 68.0 27 17 AAT18357 13.2 66.0 47 17 AAT28357 13.2 66.0 47 17 AAT28357 13.2 66.0 51 21 AAA76663 13.2 66.0 51 22 AAT14164 13.2 66.0 51 22 AAT14164 13.2 66.0 51 22 AAT74164 13.2 66.0 51 22 AAT74165 13.3 65.0 18 19 AAV25245 13 65.0 18 19 AAV25245 13 65.0 18 19 AAV25248	0 100.0 22 0 100.0 35 0 100.0 35 9 90.0 18 8 90.0 18 6 88.0 21 7 85.0 19
AV19660 AV19662 AD15281 AD15281 AD15281 AD15281 AD15282 AD15281 AD15282 AD4584516 AF84517 AF84518 AF84	AQ49817 AQ86644 AAV19652 AAV19659 AAV11591 AAV11591 AAV19661 AAV19661
Human bcl-2 antise Human bcl-2 antise Human bcl-2 mRNA t Human bcl-2 not sed to PCR primer used in Human scl-2 forwar Human sclone cg2784 Human clone cg2784 Human clone cg2784 Human silent SNP c	antis trans bcl-2 bcl-x omal b bcl g bcl g

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## ALIGNMENTS

RESULT

YX TQ XX	DR.	PI	XX A	PR	XX	XX D	XX	XX SO	XX	KW	XX	XX	× ⊬	AC	XX	ID	AAQ8
Anti-code oligomers which bind to bcl-2 mRNA - for the treatment of human solid tumours, esp. breast cancer	WPI; 1995-139394/18.	Reed JC;	(REED/) REED J C.	20-SEP-1993; 93US-0124256.	20-SEP-1994; 94WO-US10725.	30-MAR-1995.	WO9508350-A.	Synthetic.	lymphoma; programmed cell death; ss.	Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy;	Bc1-2 translation initiation site region.	#! OUT 1999 (TITOL CHET)	27-SED-1995 (first ontry)	AAQ86649;		AAQ86649 standard; DNA; 20 BP.	AAQ86649

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Bcl-2 antisense ol

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RESULT 2
AAV19651/c
ID AAV19651;
XX
AC AAV19651;
XX
DE Human bcl-2 antisense olig
XX Antisense oligonucleotide;
XX 21-FEB-1994; 94US-02886;
XX 21-FEB-1994; 94US-02886;
XX 21-FEB-1994; 94US-02170;
XX 21-FEB-1994; 94US-02170;
XX 21-FEB-1994; 94US-02170;
XX Anti-sense oligonucleotide;
XX
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Best Local
Query Match
Best Local Similarity
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                                                                                                                                                                                          a functional bcl-2 gene product. These oligonucleotides may be used fo treating cancers associated with high levels of bcl-2 gene expression,
                                                                                                                                                                                                                                              strategic sites such as the translation initiation site, donor and acceptor splicing sites, or sites for transportation or degradation Blocking translation at such strategic sites prevents the formation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Anti-sense oligo:nucleotide(s) complementary to BCL-2 mRNA for treating cancers, e.g. lymphoma(s) and some leukaemia(s)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20 BP; 4 A; 4 C; 10 G; 2 T; 0 other;
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                                                                                                                                                                especially lymphomas and some
                                                                                                                                                                                                                                                                                                                                 oligonucleotides are phosphorothicate derivatives and
                                                                                                                                                                                                                                                                                                                                                              This antisense oligonucleotide is complementary to the translation initiation site of the human bcl-2 mRNA. The Bcl-2 antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Antisense oligonucleotide; bcl-2 gene; lymphoma; leukaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human bcl-2 antisense oligonucleotide 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                              6; Columns 3-4; 21pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
20; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12; Page 33; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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88US-0288692.
94US-0217082.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94US-0288692
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100.0%;
                                                                                                          10 C; 4 G; 4 T; 0 other;
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Pred. No.
Score
Pred.
                                                                                                                                                                leukaemias.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
NO;
  . 1.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.5;
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                            19;
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                         Length
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                                                                                                                                                                                                                                                                                                                                    can
                                                                                                                                                                                                                                                                                                                                          straddle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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DAXAXI

AAD15276;

15-NOV-2001

(first entry)

AAD15276 standard;

DNA;

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AAV19657
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AAD15276/c
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           RESULT
                                                                                      Query Match
Best Local S
Matches 20
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                                                                                                                                                                                                                                                                                                                                                                                                   21-FEB-1992;
22-DEC-1988;
24-MAR-1994;
                                                                                                                                                                             as an indicator of bcl-2 antisense oligonucleotide mediated programmed cell death in human lymphoma cells. Bcl-2 antisense oligonucleotides strategic sites such as the translation initiation site, donor and acceptor splicing sites, or sites for transportation or degradation. Blocking translation at such strategic sites prevents the formation of a functional bcl-2 gene product. These oligonucleotides may be used for treating cancers associated with high levels of bcl-2 gene expression,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV19657;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAV19657
                                                                                                                                                                                                                                                                                                                                                          Reed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    31-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US5734033-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human bcl-2 transcription initiation sense (TI-S) oligonucleotide.
                                                                                                                                            Sequence 20
                                                                                                                                                                                                                                                                               Disclosure;
                                                                                                                                                                                                                                                                                                     Anti-sense oligo:nucleotide(s) complementary to for treating cancers, e.g. lymphoma(s) and some
                                                                                                                                                                                                                                                                                                                                    WPI; 1998-229881/20
                                                                                                                                                                                                                                                                                                                                                                                                                                               24-MAR-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Antisense oligonucleotide;
                                                                                                                                                                                                                                                                                                  for treating cancers, e.g. lymphoma(s)
                                                                                                                                                                                                                                                                                                                                                                             (UYPE-) UNIV PENNSYLVANIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo
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                                        gggaaggatggcgcacgctg
                                                                                                                                                                                                                                                        oligonucleotide is used as a control in measuring DNA fragmentation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGAAGGATGGCGCACGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gggaaggatggcgcacgctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SS
                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                standard; DNA;
                                                                                                                                                                  lymphomas and some
                                                                                                                                            BP; 4 A; 4 C; 10
                                                                                                                                                                                                                                                                               Column 19; 21pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry
                                                                                                                                                                                                                                                                                                                                                                                                    88US-0288692
94US-0217082
                                                                                                                                                                                                                                                                                                                                                                                                                          92US-0840716
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                                                                                                100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          bcl-2 gene; lymphoma;
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                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                               6
                                                                                                   Score 20; DB:
Pred. No. 1.5;
                                                                                                                                                                   leukaemias.
                                                                                                                                             2 T; 0 other;
                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                             19;
                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                               BCL-2 mRNA -
                                                                                                                                                                                                                                                                                                      leukaemia(s)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            leukaemia;
                                                                                                            Length 20;
                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human;
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                                                                                          0,
                                                                                                                                                                                                                                                                                                               useful
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FT FH XXX
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Best Local
                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to a liposomal composition of antisense oligonucleotides targetted to the translation initiation site of human Bcl-2 mRNA. The invention also relates to a method useful for treating Bcl-associated diseases like cancer such as follicular and nonfollicular lymphomas, chronic lymphocytic leukaemia and plasma cell dyscrasias; solid tumours like those associated with breast, prostate, liver, pancreas, lung, brain, ovary, testes, skin, head, neck, oesophagus, stomach, kidney and colon cancer; and immune disorders. The present DNA stomach, kidney and colon cancer; and immune disorders. The present DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence is liposomal antisense oligonucleotide targetted to the translation initiation site of human Bcl-2 mRNA. This antisense oligonucleotide which is preferably composed of a nuclease resistant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       chronic lymphocytic leukaemia; plasma cell dyscrasia; cancer; pancreas; breast; liver; lung; brain; ovary; stomach; prostate; neck; oesophagus; testes; skin; head; kidney; colon; immune disorder; liposome; ss.
                             modified_base
                                                                        Unidentified
                                                                                               biomolecule;
                                                                                                             AM-TIS sulphate-oligonucleotide; DNA transfection; fluorophore;
                                                                                                                                       AM-TIS sulphate-oligonucleotide to detect binding of charged species
                                                                                                                                                                      06-NOV-2001
                                                                                                                                                                                                  AAD12300;
                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Compositions comprising short antisense oligonucleotides and a lipid component, useful for treating Bcl-associated diseases, e.g. cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tari
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-FEB-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                           AAD12300 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TEXA ) UNIV TEXAS SYSTEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human
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                                                                                                                                                                                                                                                                                                    GGGAAGGATGGCGCACGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bcl-2 mRNA targetted liposomal antisense oligonucleotide #1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bcl-2 protein;
                                                                                                                                                                                                                                                                                                                                                         20;
                                                                                                                                                                                                                                                                                                                                                                      Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lopez-Berestein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Page 31; 63pp; English.
                                                                                                                                                                                                                                                                                                                                                      100.0%;
ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                             BP; 2 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          able
                                                                                                 charged
                                                                                                                                                                   (first entry)
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                                          Location/Qualifiers
/mod_base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                       to inhibit the production of Bcl-2 protein.
                                                                                                                                                                                                                             DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                             10 C; 4 G; 4 T; 0 other;
                                                                                               species; lipid vesicle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cytostatic;
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Pred.
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                                                                                                                                                                                                                                                                                                                                                         Mismatches
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                                                                                                                                                                                                                                                                                                                                                                      No.
                                                                                                                                                                                                                                                                                                                                                                DB
1.5;
                                                                                                                                                                                                                                                                                                                                                                                  22;
                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                   20
                                                                                                                                                                                                                                                                                                                                                      0;
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RESULT 6.
AAD12301/c
ID AAD12301 standard; DNA;
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                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                  The method is used for determining the extent of binding of species, particularly a biomolecule (nucleic acid or protein) to a surface or its release from the surface. Particularly the surface is a lipid vesicle being used for DNA transfection or a cell membrane. The method is also useful for monitoring transfection of DNA to cells, in vivo or in vitro. The method is used for detecting both specific and non-specific interactions at the surface. The lipid/steroid component ensures stable incorporation of the probe, thus stable and reproducible observation of interactions. The present DNA sequence is an AM-TIS sulphate-oligodeoxynucleotide which is used to detect the binding of charged
             Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      species at a surface, where binding alters the local pH or the surface potential, by stable incorporation of a probe at the surface. Probe consists of a pH- or potential-sensitive fluorophore attached to either a steroid or a lipid having at least two alkyl or alkenyl chains of at
                                       biomolecule;
                                                    Bcl2-TIAS sulphate-oligonucleotide;
                                                                                 Bcl2-TIAS
                                                                                                           06-NOV-2001
                                                                                                                                     AAD12301;
                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            least 14 carbons. A change in fluorescence from fluorophore when a species binds to, or is released from, the surface is detected.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to a method for determining the binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    potential-sensitive probe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 transfection vesicle, using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Determining binding of compounds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16-AUG-2001.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (YISS ) YISSUM RES DEV CO HEBREW UNIV JERUSALEM
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                                                                                                                                                                                                                                   gggaaggatggcgcacgctg
                                                                                                                                                                                                                                                                                           20;
                                                                                                                                                                                                                                                                                                      Similarity
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                                                                              sulphate-oligonucleotide to detect binding of charged species.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Page 20;
                                                                                                                                                                                                                                                                                                                                                             В₽;
                                                                                                                                                                                                                                                                                           Conservative
                                       charged
                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001WO-IL00134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hirsch-lerner D,
                                                                                                                                                                                                                                                                                                                                                             4 A;
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/mod_base= OTHER
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(fluoresceinisothiocyanate)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      39pp;
                                                                                                                                                                                                                                                                                                                                                             4
                                       species; lipid
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                                                                                                                                                                                                                                                                                                                                                             c;
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                                                                                                                                                                 ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ounds to a surface, particularly of DNA to lipid-coupled fluorophore as pH- or
                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                             G; 2 T; 0 other;
                                                                                                                                                                                                                                                                                                      Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cohen
                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                        NO.
                                                     DNA transfection;
                                       vesicle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ₽,
                                                                                                                                                                                                                                                                                                                     DB 22;
                                                                                                                                                                                                                                                                                                        5.
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                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A,
                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gatt
                                                     fluorophore;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of a
                                                                                                                                                                                                                                                                                         Gaps
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RESULT 7
AAF778
ID AAF778
XX
AC AAF778
XY
DT 29-WAY
XX
XX
DT 29-WAY
XX
XX
DE BCL-2
XX
KW BCL-2;
                                                                                                                                                                           g
                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                               The method is used for detecting both specific and non-specific interactions at the surface. The lipid/steroid component ensures stable incorporation of the probe, thus stable and reproducible observation of interactions. The present DNA sequence is an BCL2-TIAS sulphate-oligodeoxynucleotide which is used to detect the binding of charged
                                                                                                                                                                                                                                                                                                                                                                                                particularly a biomolecule (nucleic acid or protein) to a surface or its release from the surface. Particularly the surface is a lipid vesicle being used for DNA transfection or a cell membrane. The method is also useful for monitoring transfection of DNA to cells, in vivo or in vitro.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      least 14 carbons. A change in fluorescence from fluorophore when a species binds to, or is released from, the surface is detected. The method is used for determining the extent of binding of species,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           species at a surface, where binding alters the local pH or the surface potential, by stable incorporation of a probe at the surface. Probe consists of a pH- or potential-sensitive fluorophore attached to either a steroid or a lipid having at least two alkyl or alkenyl chains of at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Key
modified_base
BCL-2; apoptosis; cancer; cytostatic; antisense gene therapy; ss.
                        BCL-2 antisense oligodeoxynucleotide
                                                    29-MAY-2001
                                                                              AAF77808;
                                                                                                       AAF77808 standard; DNA;
                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to a method for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 4; Page 20; 39pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    potential-sensitive probe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Determining binding of compounds to a surface, particular transfection vesicle, using lipid-coupled fluorophore as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Barenholz Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (YISS ) YISSUM RES DEV CO HEBREW UNIV JERUSALEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-FEB-2001;
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                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                    1 gggaaggatggcgcacgctg 20
                                                                                                                                                                           GGGAAGGATGGCGCACGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001-497084/54
                                                                                                                                                                                                                            20;
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                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                            BP; 2 A;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001WO-IL00134
                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hirsch-lerner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /*tag= a
/mod_base= OTHER
/mote= "Optionally labelled with FITC
/note= "Optionally labelled with FITC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag= b
/mod_base= OTHER
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                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                            10 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Sulphate-Oligodeoxynucleotide"
                                                                                                        20
                                                                                                          ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ó
                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                         Score 20;
Pred. No.
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                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  determining the binding
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5:
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                                                                                                                                                                                                                                                     22;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            particularly of DNA
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                                                                                                                                                                                                                                                    Length 20;
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AAF778(
ID A
  QΥ
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                         7809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 compound, and providing the complex to the cells. The present sequence an antisense oligonucleotide for BCL-2, which may be used in the present invention. BCL-2 is a suppressor of apports and its expression in cancer cells may contribute to the resistance of cancer cells to apport of the present invention is useful for treating cancer and any other disease amenable to the treatment by antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Delivering antisense oligodeoxynucleotide to cells cancers, involves forming a complex comprising the and a polynuclear platinum compound, and providing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention relates to a method for delivering an antisense oligodeoxynucleotide to cells. The method comprises forming a complex
            Farrell NP;
                                                                24-AUG-1999;
                                                                                         22-AUG-2000;
                                                                                                                     01-MAR-2001
                                                                                                                                              WO200113914-A1
                                                                                                                                                                        Unidentified
                                                                                                                                                                                                 BCL-2; apoptosis; cancer; cytostatic; antisense
                                                                                                                                                                                                                           Control sense oligodeoxynucleotide
                                                                                                                                                                                                                                                      29-MAY-2001
                                                                                                                                                                                                                                                                                 AAF77809;
                                                                                                                                                                                                                                                                                                         AAF77809 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       oligonucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              comprising the antisense oligonucleotide and a polynuclear platinum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 1; Page 27; 52pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (UYVI-) UNIV VIRGINIA COMMONWEALTH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-AUG-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-MAR-2001
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                                      (UYVI-) UNIV
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                                                                                                                                                                                                                                                                                                                                                                                        1 gggaaggatggcgcacgctg
                                                                                                                                                                                                                                                                                                                                    8
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                                                                                                                                                                                                                                                                                                                                                                            GGGAAGGATGGCGCACGCTG 1
                                                                                                                                                                                                                                                                                                                                                                                                                             l Similarity
20; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20 BP; 2
                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                       VIRGINIA COMMONWEALTH.
                                                                                           2000WO-US22957
                                                                                                                                                                                                                                                      (first entry)
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                                                                99US-0379718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99US-0379718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Α;
                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10 C; 4 G; 4 T; 0 other;
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                                                                                                                                                                                                                                                                                                           ВP
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
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Length 20; Indels

oligodeoxynucleotide the complex to the for treating

sequence is

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gene therapy; ss

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RESULT 9
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Best Local S
Matches 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention relates to a method for delivering an antisense oligodeoxynucleotide to cells. The method comprises forming a complex comprising the antisense oligonucleotide and a polynuclear platinum compound, and providing the complex to the cells. The present sequence is a control sense oligonucleotide which was used in an assay for BCL-2 antisense oligonucleotide activity (see AAF7808). BCL-2 is a suppressor of apoptosis and its expression in cancer cells may contribute to the resistance of cancer cells to apoptosis. The complex of the present invention is useful for treating cancer and any other disease amenable to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 4; Page 28; 52pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and
A DNA construct comprising the bcl-2 coding sequence under control of elements allowing its expression is claimed. Myc-induced cell death can be inhibited in cultured cells by expressing bcl-2. Myc-induced cell death can be de-inhibited in tumour cells by admi
                                                                                               Treating tumour cells by de-inhibiting Myc-induced apoptosis esp. by inhibiting expression of the BCL-2 oncogene e.g. with antisense oligo:nucleotide(s), also increasing survival of cultured cells by expressing BCL-2
                                                                                                                                                                                                                                                                                                                                                                                                                    expression;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Cell death; apoptosis; inhibition; de-inhibition; bcl-2 oncogene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-MAY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAQ49816 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 20 BP; 4 A; 4 C; 10 G; 2 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the treatment by antisense oligonucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cancers, involves
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Delivering antisense oligodeoxynucleotide to cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-257588/26
                                                                                                                                                                        WPI; 1993-336908/42.
                                                                                                                                                                                                                                                                                                       02-APR-1993;
                                                                                                                                                                                                                                                                                                                                  14-OCT-1993
                                                                                                                                                                                                                                                                                                                                                            WO9320200-A.
                                                                                                                                                                                                                                                                                                                                                                                      Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bcl-2 antisense oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAQ49816;
                                                                      Disclosure; Page 58;
                                                                                                                                                                                                    Evan
                                                                                                                                                                                                                              (IMCR ) IMPERIAL CANCER RES TECHNOLOGY.
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                                                                                                                                                                                                    GI;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rs, involves forming a complex comprising the polynuclear platinum compound, and providing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20;
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92GB-0007276
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                                                                      109pp;
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                                                                      English.
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                for treating oligodeoxynucleotide the complex to the
  by admin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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RESULT AAQ86644 ID AAQ

AAQ86644 standard; DNA;

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ВP

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RESULT 1
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                                         Matches
                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                   Cell death;
expression;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                        A DNA construct comprising the bcl-2 coding sequence under control of elements allowing its expression is claimed. Myc-induced cell death can be inhibited in cultured cells by expressing bcl-2. Myc-induced cell death can be de-inhibited in tumour cells by admi
                                                                                                                                                                                                                                                                                                                   02-APR-1992;
02-APR-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bcl-2 antisense oligonucleotide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAQ49817 standard;
                                                                                         Sequence
                                                                                                                                                                             Disclosure; Page 58; 109pp;
                                                                                                                                                                                                   cultured
                                                                                                                                                                                                            esp. by inhibiting expression of the BCL-2 oncogene e.g. with antisense oligo:nucleotide(s), also increasing survival of
                                                                                                                                                                                                                     Treating tumour cells by de-inhibiting Myc-induced apoptosis esp. by inhibiting expression of the BCL-2 oncogene e.g. with
                                                                                                                                                                                                                                                     WPI; 1993-336908/42
                                                                                                                                                                                                                                                                                                                                                  02-APR-1993;
                                                                                                                                                                                                                                                                                                                                                                     14-OCT-1993
                                                                                                                                                                                                                                                                                                                                                                                           WO9320200-A
                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic.
                                                                                                                                                                                                                                                                                              (IMCR ) IMPERIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22
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22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 gggaaggatggcgcacgctg
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          1 gggaaggatggcgcacgctg
                                                                                                               bcl-2 antisense oligonucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGAAGGATGGCGCACGCTG
GGGAAGGATGGCGCACGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20;
                                         20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                  Similarity
                                                                                                                                                                                                  cells by expressing BCL-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22 BP; 2 A; 12 C; 4 G; 4 T; 0 other;
                                                                                            22
                                                                                                                                                                                                                                                                                                                                                                                                                                   apoptosis; inhibition; de-inhibition; bcl-2 oncogene; \mathrm{myc}; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                            BP;
                                         Conservative
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92GB-0007276
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                                                                                                                                                                                                                                                                                               CANCER RES
                                                                                            A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                                  100.0%;
                                                                                            12 C; 4 G; 4 U; 0 other;
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                                                                                                                                                                              English.
                                                                                                                                                                                                                                                                                                TECHNOLOGY
                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 20;
Pred. No.
                                                    Score 20;
Pred. No.
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                                         Mismatches
                                                   1.6;
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                                                              DB 14;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 22;
                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                          Indels
                                                                                                                           by admin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                         0;
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                                         Gaps
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PR XXX
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                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 20
                                                                                                                                                                                                                                                                                                                                                                             The antisense oligonucleotide TI-AS (AAQ86643) straddles the translation initiation site in the mRNA coding strand of the human bcl-2 gene and is complementary to this region. It reduces the expression of bcl-2 gene product thereby inducing programmed cell death of certain cancer cells. The corresp. sense bcl-1 sequence
21-FEB-1992;
                                      31-MAR-1998
                                                                                                                                           Human bcl-2 oligonucleotide 1.
                                                                                                                                                                 12-JUN-1998
                                                                                                                                                                                                                                                                                                                                                   Sequence 35 BP; 6 A; 8 C; 13 G; 8 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                     death of certain cancer cells. The cwas synthesized for use as a control.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 13; 108pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Anti-code oligomers which bind to bcl-2 mRNA - of human solid tumours, esp. breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1995-139394/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic.
                    24-MAR-1994;
                                                           US5734033<sup>-</sup>A
                                                                                           Synthetic.
                                                                                                                       Antisense oligonucleotide; bcl-2 gene;
                                                                                                                                                                                                        AAV19652 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (REED/) REED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9508350-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Anticode oligomer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bcl-2 translation initiation region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAQ86644;
                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       leukemia;
                                                                                                                                                                                                                                                          11
                                                                                                                                                                                                                            12
                                                                                                                                                                                                                                                                  gggaaggatggcgcacgctg 20
                                                                                                                                                                                                                                                        gggaaggatggcgcacgctg 30
                                                                                                                                                                                                                                                                                            II 100.0%;
Similarity 100.0%;
20; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       lymphoma;
                                                                                                                                                                (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
92US-0840716
                    94US-0288692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93US-0124256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              94WO-US10725
                                                                                                                                                                                                        DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 antisense oligonucleotide; bcl-2;
                                                                                                                                                                entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       solid tumor; breast cancer; autoimmune
                                                                                                                                                                                                        ВP
                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                               Score 20; DE
Pred. No. 1.6
0; Mismatches
                                                                                                                       lymphoma;
                                                                                                                                                                                                                                                                                                         DB :
                                                                                                                                                                                                                                                                                                                    16;
                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          for
                                                                                                                      leukaemia;
                                                                                                                                                                                                                                                                                                                   Length 35;
                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cancer; therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       disease;
                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                             human
                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                 0;
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present invention provides antisense nucleotides which hybridise to human bcl-xL and bcl-2 mRNA sequences. The bcl-xL and bcl-2 proteins

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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        straddle strategic sites such as the translation initiation site, donor and acceptor splicing sites, or sites for transportation or degradation. Blocking translation at such strategic sites prevents the formation of functional bc1-2 gene product. These oligonucleotides may be used for treating cancers associated with high levels of bc1-2 gene expression,
                                                          Antisense oligonucleotide derivatives directed against human bcl-xL mRNA and capable of modulating biosynthesis of human bcl-xL proteins, useful in treatment and diagnosis of hyperproliferative diseases -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Reed
                                   Example 2; Page 23; 38pp; English.
                                                                                                                                                                                                                                                                                                              Human; bcl-xL; bcl-2;
restenosis; fibrosis;
                                                                                                                                                                                                                                                                                                                                                   Human bcl-xL and bcl-2 mRNA antisense control sequence CO2
                                                                                                                                                                                                                                                                                                                                                                                                     AAC86407;
                                                                                                                                                                                                                                                                                                                                                                                                                             AAC86407 standard; RNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 35 BP; 6 A; 8 C; 13 G; 8 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            especially lymphomas and some leukaemias.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     oligonucleotide complementary to the translation initiation site of the human bcl-2 mRNA can be constructed. Bcl-2 antisense oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Columns 3-4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Anti-sense oligo:nucleotide(s) complementary to BCL-2 mRNA for treating cancers, e.g. lymphoma(s) and some leukaemia(s)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1998-229881/20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22-DEC-1988;
24-MAR-1994;
                                                                                                                                      Zangemeister-Wittke U,
                                                                                                                                                             (UYZU-) UNIV ZUERICH.
                                                                                                                                                                                      30-APR-1999;
                                                                                                                                                                                                              26-APR-2000; 2000WO-EP03708
                                                                                                                                                                                                                                       09-NOV-2000.
                                                                                                                                                                                                                                                              WO200066724-A2
                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                            28-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This is a human bcl-2 oligonucleotide based on which an antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (UYPE-) UNIV
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gggaaggatggcgcacgctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gggaaggatggcgcacgctg
                                                                                                             2001-015981/02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PENNSYLVANIA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                                                                                                                              apoptosis;
psoriasis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21pp; English.
                                                                                                                                      Luedke
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
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                                                                                                                                                                                                                                                                                                                                                                                                                             ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 20;
Pred. No.
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و
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                                                                                                                                                                                                                                                                                                                antisense;
                                                                                                                                      Huesken
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB
                                                                                                                                      Ď,
                                                                                                                                                                                                                                                                                                                             cancer; allergic disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
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AAV11591/
ID AAV1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                   This sequence is a nuclease-resistant p-ethoxy antisense oligonucleotide which specifically binds to the translation initiation site of human scale mank. This oligonucleotide can be used in a method to treat Bcl-2 related disease in humans and animals, e.g. cancer especially follicular lymphoma (FL), leukaemia, plasma cell dyscrasia, cancer of breast, prostate and colon, or autoimmune diseases.
                                                                                                                  Sequence 18 BP; 2 A; 8 C; 4 G;
                                                                                                                                                                                                                                                          Composition comprising oligo:nucleotide anti-sense to Bcl-2 gene -useful for, e.g. treatment of Bcl-2 related disease such as follicular lymphoma and auto-immune disease
                                                                                                                                                                                                                                    Claim 4; Page 30; 69pp; English.
                                                                                                                                                                                                                                                                                                                        WPI; 1998-239841/21.
                                                                                                                                                                                                                                                                                                                                                                                                                               03-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                Lopez-Berestein G,
                                                                                                                                                                                                                                                                                                                                                                         (TEXA ) UNIV TEXAS SYSTEM.
                                                                                                                                                                                                                                                                                                                                                                                                      04-OCT-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          09-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  W09814172-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               autoimmune diseases; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bcl-2; antisense; disease; treatment; cancer; follicular lymphoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Liposomal bcl-2 antisense polynucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-JUL-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAV11591;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAV11591 standard; DNA; 18 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  are involved in apoptosis, and the antisense strands can be used to inhibit them and possibly lead to cell death. The nucleic acids of the invention can be used in the treatment of cancer, particularly colorectal, gastric, prostate, thyroid, renal, breast and lung cancers, neuroblastoma and melanoma, restenosis, fibrosis, psoriasis and certain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                leukaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 20 BP; 2 A; 10 C; 4 G; 4 T; 0 other;
18 GAAGGATGGCGCACGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               types of allergic disease.
                     3 gaaggatggcgcacgctg 20
                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20 GGAAGGATGGCGCACGCTG 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 ggaaggatggcgcacgctg 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens.
                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           plasma cell dyscrasia;
                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                   96US-0726211
                                                                                                                                                                                                                                                                                                                                                                                                                            97WO-US18348
                                                                                                                                                                                                                                                                                                                                              McDonnel TJ,
                                                              90.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               95.0%;
                                                  0;
                                                              Score 18; DB 19;
Pred. No. 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 19;
Pred. No.
                                                                                                                 4 T; 0 other;
                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                             Tara AM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         breast; prostate; colon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 22;
                                                                                                                                                                                                                                                                                                                                          Tormo
                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                        Length 18;
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                                          Gaps
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Job time: 8086 sec

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GGAARNATGGCGCACGCTG

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Search completed: June 28, 2002, 22:40:10

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                                  Matches
                                                 Best
                                                             Query Match
                                                                                                               The present invention is concerned with antisense oligonucleotides containing a number of degenerate bases and with a modified backbone which can be used to direct cleavage of target RNA molecules. The use of degenerate bases reduces the risk of immune activation following injection into animals, which causes deleterious side effects associated with many therapeutic antisense oligonucleotides. Sequences AAC65029-C65077 are antisense oligonucleotides and PCR primers used in assays to demonstrate the effects of the sequences of the invention.
                                                                                            Sequence 21 BP; 2 A; 9 C; 4 G; 4 T; 2 other;
                                                                                                                                                                                                                                                                     Antisense oligonucleotides containing degenerate and/or universal bases, and modified backbone linkages is useful to target therapeutic genes, preferably anti-apoptosis or chemoresistance genes
                                                                                                                                                                                                                                                 Example 7; Fig 3; 32pp; English.
                                                                                                                                                                                                                                                                                                                                  WPI; 2000-679502/66.
                                                                                                                                                                                                                                                                                                                                                                                        (OASI-) OASIS BIOSCIENCES INC
                                                                                                                                                                                                                                                                                                                                                                                                                  08-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                           07-APR-2000; 2000WO-US09293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200061810-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Antisense oligonucleotide; Fbcl; protein kinase C; PKC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human bcl genes antisense sequence #8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAC65064;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAC65064 standard; DNA; 21 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-FEB-2001
                                 Local Similarity nes 17; Conserv
2 ggaaggatggcgcacgctg 20
                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                  99US-0128377.
                                           88.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RNA molecule cleavage; immune activation;
                                                     Score 17.6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PCR primer; ss.
                                           Pred.
                             Mismatches
                                           No.
                                        22;
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                          Indels
                          0;
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Page 8

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OM nucleic - nucleic search, using sw model
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence:
Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                June 28, 2002, 19:51:49; Search time 3762.88 Seconds (without alignments) 111.226 Million cell updates/sec
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
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6347 Sequenc	R14634	0	18		13	43	
0496 Sequenc	AR140496	0	18		13	42	
σ	AR116926	9	18			41	
52624 Sequenc	AR052624	6	18		13	40	
052619 Sequenc	AR052619	6	18		13	39	
6090 Sequence	20	σ	17		13	38	
5505	AX355505	σ	16		13	37	
3898	AX103898	σ	16		13	36	
65019	10	σ	51			ω 5	
57778 Sequenc	~1 ·	σ	51			34	
57777	5777	σ,			ω١	ωí	(
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AR153764 Sequence	AR153764	o 0	47			3 C	o.
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13709	AX113709	0	70		13.8	26	
AX113708 Sequence	AX113708	σ	60	٠	13.8	25	
AX113707 Sequence	AX113707	σ	50	•	13.8	24	
694	69	0	19	•	14	23	
W	196093	σ	17	75.0	15	22	
469	7	σ	15	•	15	21	
468 Sequer	AX277468	σ	15	•	15	20	
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## ALIGNMENTS

RESULT 1 AR052603 LOCUS DEFINITION AR052603 AR052603 VERSION AR052603.1 GI:5975967 KEYWORDS SOURCE ORGANISM Unclassified. 1 (bases 1 to 20) AUTHORS TITLE REGULATION FEATURES SOURCE JOURNAL FEATURES SOURCE SOURCE JOURNAL FEATURES SOURCE JOURNAL FEATURES SOURCE JOURNAL FEATURES SOURCE JOURNAL FEATURES SOURCE JOURNAL LOCATION/Qualifiers					•												
20 bp DNA linear 21 from patent US 5831066.  3.1 GI:5975967  3.1 to 20) 25 1 to 20) 25 1 to 20) 25 1 to 3-NOV-1998; Location/Qualifiers 1. 20 1. 20 1. 20 1. 20 1. 20 2. 4 gene expression 25 6831066-A 1 03-NOV-1998; Location/Qualifiers 1. 20 2. 70rganism="unknown" 4 g 4 t	BASE COUNT ORIGIN	source	FEATURES	JOURNAL	TITLE	AUTHORS	REFERENCE		ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION	DEFINITION	Locus	AR052603	RESULT 1
199	./organism="unknown" 2 a 10 c 4 g 4 t		Location/Qualifiers	Patent: US 5831066-A 1 03-NOV-1998;	Regulation of bcl-2 gene expression	Reed, J.C.	1 (bases 1 to 20)	Unclassified.	Unknown.	Unknown.		AR052603.1 GI:5975967	AR052603	Sequence 1 from patent US 5831066.	20 bp DNA		

Result No.

Query Score Match Length DB

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Description

Query Match
Best Local Similarity

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Score 20; Pred. No.

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Barenholz, Y., Hirsch-
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Barenholz,Y., Hirsch-Lerner,D., Cohe
Betection of binding of charged specepotential-sensitive probes

Patent: WO 0159156-A 1 16-AUG-2001;
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                  Antisense oligonucleotides inhibiting human Patent: US 5734033-A 1 31-MAR-1998; Location/Qualifiers
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Board of Regents, The University of Texas System (US)
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Patent: WO 0159156-A 2 16-AUG-2001;
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MODIFIED CELLS AND METHOD OF TREATMENT Patent: WO 9330200-A 3 14-OCT-1993;
IMP CANCER RES TECH (GB); EVAN GERARD Location/Qualifiers
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Sequence 3 from Patent W09320200.
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Sequence 4 from Patent W09320200.
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Sequence 2 from patent US
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1 (bases 1 to 22)
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BD008994
Inhibition of Bcl-2 protein e oligodeoxynucleotides.
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JP 2001502172-A/1.
l (bases 1-1. to 18)
Tormo,M., Tara,A.M., Berestein,G.L. and Mcdonnel,T.J.
Inhibition of Bel-2 protein expression by liposomal antisense oligodeoxynucleotides
Patent: JP 2001502172-A 1 20-FEB-2001;
BOARD OF REGENTS THE UNIVERSITY OF TEXAS SYSTEM
OS Unidentified
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Universitaet Zuerich (CH)
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Sequence 7 from Patent WO0066724.
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/db_xref="taxon:32630"
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Search completed: June 28, 2002, 22:10:44 Job time: 8335 sec
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PD 20-FEB-2001
PF 03-CCT-1997 JP 1998516985
PR 04-CCT-1996 US 08/726211
PI MAR TORMO,ANA M TARA,GABRIEL LOPEZ BERESTEIN, PI TIMOTHY J MCDONNEL
PC A61K31/70,C07H21/04,C12N15/00
CC Strandedness: Single;
CC Topology: Linear;
CC Topology: Linea
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Location/Qualifiers
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24.862 Million cell updates/sec
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Copyright (c) 1993 - 2000 Comp
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Bcl-2 translation
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Human bcl-2 transc
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AM-TIS sulphate-ol
Bcl2-TIAS sulphate
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#### ALIGNMENTS

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AAQ86649/c
ID AAQ86649;
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AC AAQ86649;
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Anticode oligomer; antisenty:
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Anti-code oligomers which bind to bcl-2 mRNA - for the treatment of human solid tumours, esp. breast cancer

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Best Local
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                                                                                                                                                                                                                                                                       21-FEB-1992;
22-DEC-1988;
24-MAR-1994;
                        a functional bcl-2 gene product. These oligonucleotides may be used for treating cancers associated with high levels of bcl-2 gene expression, especially lymphomas and some leukaemias.
                                                       oligonucleotides are phosphorothioate derivatives and can straddle
strategic sites such as the translation initiation site, donor and
acceptor splicing sites, or sites for transportation or degradation.
Blocking translation at such strategic sites prevents the formation
                                                                                                     This antisense oligonucleotide is complementary to the translation initiation site of the human bcl-2 mRNA. The Bcl-2 antisense
                                                                                                                                         Claim 6; Columns 3-4; 21pp; English.
                                                                                                                                                               Anti-sense oligo:nucleotide(s) complementary to BCL-2 mRNA - for treating cancers, e.g. lymphoma(s) and some leukaemia(s)
                                                                                                                                                                                                                            Reed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            line RS11846. The oligonucleotides are phosphodiesters targeted against the translation initiation site (AAQ86650-55) or the 5'-cap region (AAQ86656-58) of human bcl-2 pre-mRNAs. A bcl-2 sense sequence
  Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                           cancer;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human bcl-2
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  BP;
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88US-0288692.
94US-0217082.
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 2 A;
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  10 C; 4 G; 4 T; 0 other;
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Pred. No.
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Query Match Best Local Similarity

100

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Length 20;

15-NOV-2001

(first entry)

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RESULT
AAV19657/
ID - AAV1
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22-DEC-1988;
24-MAR-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This oligonucleotide is used as a control in measuring DNA fragmentation as an indicator of bcl-2 antisense oligonucleotide mediated programmed cell death in human lymphoma cells. Bcl-2 antisense oligonucleotides straddle strategic sites such as the translation initiation site, donor and acceptor splicing sites, or sites for transportation or degradation. Blocking translation at such strategic sites prevents the formation of a plocking translation at such strategic sites prevents the formation of a place of the strategic sites prevents the formation of a place of the strategic sites prevents the formation of a place of the strategic sites prevents the strategic sites 
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                                                                 AAD15276;
                                                                                                                                AAD15276 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         treating cancers associated with high levels especially lymphomas and some leukaemias.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-JUN-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              unctional bcl-2 gene product. These oligonucleotides may be used
                                                                                                                                                                                                                                                                                                                   20 CAGCGTGCGCCATCCTTCCC
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88US-0288692.
94US-0217082.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a liposomal composition of antisense oligonucleotides targetted to the translation initiation site of human Bc1-2 mRNA. The invention also relates to a method useful for treating Bc1-associated diseases like cancer such as follicular and nonfollicular lymphomas, chronic lymphocytic leukaemia and plasma cell dyscrasias; solid tumours like those associated with breast, prostate, liver, pancreas, lung, brain, ovary, testes, skin, head, neck, oesophagus, stomach, kidney and colon cancer; and immune disorders. The present DNA sequence is liposomal antisense oligonucleotide targetted to the translation initiation site of human Bc1-2 mRNA. This antisense oligonucleotide which is preferably composed of a nuclease resistant backbone is able to inhibit the production of Bc1-2 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   chronic lymphocytic leukaemia; plasma cell dyscrasia; cancer; pancreas; breast; liver; lung; brain; ovary; stomach; prostate; neck; oesophagus; testes; skin; head; kidney; colon; immune disorder; liposome; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 20 BP; 2 A; 10 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Compositions comprising short antisense oligonucleotides and a lipid component, useful for treating Bcl-associated diseases, e.g. cancer
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; Bcl-2 protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human
                                                                                                    AM-TIS sulphate-oligonucleotide; DNA transfection; biomolecule; charged species; lipid vesicle; ss.
                                                                                                                                               AM-TIS sulphate-oligonucleotide to detect binding of charged species
                                                                                                                                                                              06-NOV-2001
                                                                                                                                                                                                           AAD12300;
                                                                                                                                                                                                                                       AAD12300 standard; DNA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cancer therapy; antisense;
                                                                                                                                                                                                                                                                                                                                                                       0;
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                                                                                                                                                                                                                                                                                                                                                                                                   Length 20;
                                                                                                                  fluorophore
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   least 14 carbons. A change in fluorescence from fluorophore when a species binds to, or is released from, the surface is detected. The method is used for determining the extent of binding of species, particularly a biomolecule (nucleic acid or protein) to a surface or its release from the surface. Particularly the surface is a lipid vesicle being used for DNA transfection or a cell membrane. The method is also useful for monitoring transfection of DNA to cells, in vivo or in vitro.
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                                           Bcl2-TIAS sulphate-oligonucleotide;
biomolecule; charged species; lipid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    oligodeoxynucleotide which is used to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The method is used for detecting both specific and non-specific interactions at the surface. The lipid/steroid component ensures stable incorporation of the probe, thus stable and reproducible observation of interactions. The present DNA sequence is an AM-TIS sulphate-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              potential-sensitive probe
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Unidentified
                                                                                                               Bcl2-TIAS sulphate-oligonucleotide to detect binding
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                                                                                                                                                                                                           AAD12301;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
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                       BCL-2 antisense oligodeoxynucleotide.
                                                                     AAF77808;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI;
BCL-2; apoptosis; cancer; cytostatic; antisense gene therapy; ss
                                                29-MAY-2001
                                                                                          AAF77808 standard; DNA; 20 BP
                                                                                                                                                                                                                                                    Sequence 20
                                                                                                                                                                                                                                                                                   oligodeoxynucleotide which is used to detect the binding of charged
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Barenholz Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 4; Page 20; 39pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              potential-sensitive probe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         transfection vesicle, using lipid-coupled fluorophore as pH-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Determining binding of compounds to a surface,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (YISS ) YISSUM RES DEV CO HEBREW UNIV JERUSALEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09-FEB-2001; 2001WO-IL00134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200159156-A2
                                                                                                                                                                                                      Local Similarity
                                                                                                                                               7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001-497084/54
                                                                                                                                                                                              20;
                                                                                                                                                                                                                                                    BP;
                                                                                                                                                                                              Conservative
                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hirsch-lerner D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000US-0181693
                                                                                                                                                                                                                                                    2 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (fluoresceinisothiocyanate)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /mod_base= OTHER
/note= "Optionally labelled with FITC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mod_base=
                                                                                                                                                                                                                                                  10 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Sulphate-Oligodeoxynucleotide"
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                                                                                                                                                                                              0;
                                                                                                                                                                                                        Score 20;
Pred. No.
                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cohen R,
                                                                                                                                                                                                        1.5;
                                                                                                                                                                                                                  DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Dagan A,
                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    particularly of DNA
                                                                                                                                                                                                                  Length 20;
                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gatt
                                                                                                                                                                                            0;
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                                                                                                                                                                                            Gaps
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Best Local 9
                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                             JLT 8
77809/c
AAF77809
            Farrell
                                                        24-AUG-1999;
                                                                                                    01-MAR-2001
                                                                                                                                                                                                                  29-MAY-2001
                                                                                                                                                                                                                                       AAF77809;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Farrell NP
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Control sense oligodeoxynucleotide.
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(UYVI-) UNIV VIRGINIA COMMONWEALTH
                                                                                                                                                                                                          WO200113914-A1
                                                                                                                                                                                                                                                             Unidentified
                                                                                                                                                                                                                                                                                                               BCL-2; apoptosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 20 BP; 2 A; 10 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               oligonucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Delivering antisense oligodeoxynucleotide to cells for treating cancers, involves forming a complex comprising the oligodeoxynucleotide and a polynuclear platinum compound, and providing the complex to the
                                                                                                  22-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     apoptosis. The complex of the present invention is useful for treat cancer and any other disease amenable to the treatment by antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200113914-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 1; Page 27; 52pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-257588/26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (UYVI-) UNIV VIRGINIA COMMONWEALTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22-AUG-2000; 2000WO-US22957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 cagcgtgcgccatccttccc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 cagcgtgcgccatccttccc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; ilarity 100.0%; Conservative (
                                                                                                     2000WO-US22957
                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                   99US-0379718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99US-0379718
                                                                                                                                                                                                                                                                                                                 cancer; cytostatic; antisense gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
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Best Local S
Matches 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and a
                                                                                                           Treating tumour cells by de-inhibiting Myc-induced apoptosis esp. by inhibiting expression of the BCL-2 oncogene e.g. with antisense oligo:nucleotide(s), also increasing survival of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      comprising the antisense oligonucleotide and a polynuclear platinum compound, and providing the complex to the cells. The present sequence is a control sense oligonucleotide which was used in an assay for BCL-2 antisense oligonucleotide activity (see AAF77808). BCL-2 is a suppressor of apoptosis and its expression in cancer cells may contribute to the resistance of cancer cells to apoptosis. The complex of the present invention is useful for treating cancer and any other disease amenable to
A DNA construct comprising the bcl-2 coding sequence under control of elements allowing its expression is claimed. Myc-induced cell death can be inhibited in cultured cells by expressing bcl-2. Myc-induced cell death can be de-inhibited in tumour cells by admi
                                                                                                                                                                                                                                                                                                                                                                                                         expression;
                                                                                                                                                                                                                                                                                                                                                                                                                     Cell death; apoptosis; inhibition; de-inhibition; bcl-2 oncogene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             03-MAY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention relates to a method for delivering an antisense oligodeoxynucleotide to cells. The method comprises forming a complex
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and
                                                                    Disclosure; Page 58;
                                                                                                                                                                   WPI; 1993-336908/42
                                                                                                                                                                                                                                                    02-APR-1992;
02-APR-1992;
                                                                                                                                                                                                                                                                                                                          14-OCT-1993
                                                                                                                                                                                                                                                                                                                                                     W09320200-A
                                                                                                                                                                                                                                                                                                                                                                              Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                               Bcl-2 antisense oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAQ49816;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAQ49816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 20 BP; 4 A; 4 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the treatment by antisense oligonucleotides.
                                                                                                                                                                                                                         (IMCR ) IMPERIAL CANCER RES TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 cagcgtgcgccatccttccc
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGCGTGCGCCATCCTTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001-257588/26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ering antisense oligodeoxynucleotide to cells for treating rs, involves forming a complex comprising the oligodeoxynucleotide polynuclear platinum compound, and providing the complex to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                              cells by expressing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page 28;
                                                                                                                                                                                                                                                                                                                                                                                                         myc;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                   92GB-0007275.
92GB-0007276.
                                                                                                                                                                                                                                                                                              93WO-GB00686
                                                                                                                                                                                                                                                                                                                                                                                                         SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             52pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                    109pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10 G; 2 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                               BCL-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 20; DB Pred. No. 1.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20;
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RESULT 11 AAQ86644/c ID AAQ866 XX

AAQ86644 standard; DNA;

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ВP

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Best L
                                    Query Match
Best Local
                            Matches
                                                                                       A DNA construct comprising the bcl-2 coding sequence under or elements allowing its expression is claimed. Myc-induced death can be inhibited in cultured cells by expressing bcl-2. Myc-induced cell death can be de-inhibited in tumour cells by of bcl-2 antisense oligonucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of
                                                                                                                                                                       Treating tumour cells by de inhibiting Myc-induced apoptosis esp. by inhibiting expression of the BCL-2 oncogene e.g. with antisense oligo:nucleotide(s), also increasing survival of
                                                                      Sequence
                                                                                                                                             Disclosure; Page 58; 109pp; English.
                                                                                                                                                            cultured cells by expressing BCL-2
                                                                                                                                                                                                         WPI; 1993-336908/42.
                                                                                                                                                                                                                          Evan GI;
                                                                                                                                                                                                                                                             02-APR-1992;
02-APR-1992;
                                                                                                                                                                                                                                                                                       02-APR-1993;
                                                                                                                                                                                                                                                                                                        14-OCT-1993.
                                                                                                                                                                                                                                                                                                                          WO9320200-A.
                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                           expression;
                                                                                                                                                                                                                                                                                                                                                                     Cell death;
                                                                                                                                                                                                                                                                                                                                                                                      Bcl-2 antisense oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                         03-MAY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                           AAQ49817;
                                                                                                                                                                                                                                                                                                                                                                                                                                           AAQ49817 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                           (IMCR )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 cagcgtgcgccatccttccc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Match
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                            l Similarity
16; Conserv
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20; Conser
                                                                                                                                                                                                                                            IMPERIAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     antisense oligonucleotides
                                                                       BP;
                                                                                                                                                                                                                                                                                                                                                             myc;
                                                                                                                                                                                                                                                                                                                                                                     apoptosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B₽;
                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                             92GB-0007275
92GB-0007276
                                                                                                                                                                                                                                                                                        93WO-GB00686
                                                                      2 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 A;
                                                                                                                                                                                                                                            CANCER RES TECHNOLOGY
                                                                                                                                                                                                                                                                                                                                                             SS.
                                                                                                                                                                                                                                                                                                                                                                                                                                           RNA;
                                    100.0%;
                                                                      12 C; 4 G; 4 U; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12 C; 4 G; 4 T;
                                                                                                                                                                                                                                                                                                                                                                      inhibition;
                                                                                                                                                                                                                                                                                                                                                                                                                                           22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .0%;
           20
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                                                                                                                                                                                                                                                                                                                                                                                                                                           ВP
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                            4:
                                     Pred. No.
                                     Score 20;
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Pred.
                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                      de-inhibition; bcl-2 oncogene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0 other;
                                    DB 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DΒ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14;
                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                       survival of
                                                                                                               Myc-induced cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 22;
                                            Length 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                            Indels
                                                                                                 by admin
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                            0
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RESULT 12
AAV19652/c
ID AAV19652;
XX
AC AAV19652;
XY
DT 12-JUN-1998 (first entry)
XX
DE Human bcl-2 oligonucleotide,
XX
Cancer; ss.
XX
Synthetic.
OS Homo sapiens.
XX
PD 31-MAR-1998.
XX
PD 31-MAR-1998.
XX
PF 24-MAR-1994; 94US-02886;
XX
PR 21-FEB-1992; 92US-08407;
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                                                                                                                                                                                                                                                                                                  QY
                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 20
                                                                                                                                                                                                                                                                                                                                                                                                          The antisense oligonucleotide TI-AS (AAQ86643) straddles the translation initiation site in the mRNA coding strand of the bcl-2 gene and is complementary to this region. It reduces t expression of bcl-2 gene product thereby inducing programmed death of certain cancer cells. The corresp. sense bcl-1 seques a surtherized for use as a senterized.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Reed
                                                                                                                                   Antisense oligonucleotide;
                                                                                                                                                         Human bcl-2 oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 13; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Anti-code oligomers which bind to bcl-2 mRNA - of human solid tumours, esp. breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (REED/) REED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9508350-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         leukemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Anticode oligomer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bc1-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAQ86644;
                                                                                                                                                                                                                                                                              30 CAGCGTGCGCCATCCTTCCC 11
                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                    Н
                                                                                                                                                                                                                                                                                                                                                                                                    synthesized for use as a control.
                                                                                                                                                                                                                                                                                         cagcgtgcgccatccttccc 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1995-139394/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         translation
                                                                                                                                                                                                                                                                                                                           20;
                                                                                                                                                                                                                                                                                                                                                                               35
                                                                                                                                                                                                                                                                                                                                                                              BP; 6 A; 8 C; 13 G;
                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ч
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ი.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   93US-0124256
   92US-0840716
                         94US-0288692.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       94WO-US10725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         initiation region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antisense oligonucleotide; bcl-2; cancer; therap;
solid tumor; breast cancer; autoimmune disease;
                                                                                                                                                                            entry)
                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                          35
                                                                                                                                    bc1-2
                                                                                                                                                                                                                          ВP
                                                                                                                                                         ۲.
                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                         Score 20; DB Pred. No. 1.6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                              8 T;
                                                                                                                                   gene;
                                                                                                                                                                                                                                                                                                                                                                              0 other;
                                                                                                                                   Lymphoma;
                                                                                                                                                                                                                                                                                                                                             16;
                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             for the treatment
                                                                                                                                   leukaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                   It reduces the
                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                              sequence
                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                       cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                             human
                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                         0
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RESULT 13
AAC86407
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This is a human bc1-2 oligonucleotide based on which an antisense oligonucleotide complementary to the translation initiation site of the human bc1-2 mRNA can be constructed. Bc1-2 antisense oligonucleotides strandale strategic sites such as the translation initiation site, donor and acceptor splicing sites, or sites for transportation or degradation.
                                                                                                  WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Blocking translation at such strategic sites prevents the formation functional bcl-2 gene product. These oligonucleotides may be used treating cancers associated with high levels of bcl-2 gene express
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI;
                                                     Antisense oligonucleotide derivatives directed against human bcl-xL mRNA and capable of modulating biosynthesis of human bcl-xL proteins useful in treatment and diagnosis of hyperproliferative diseases -
                                                                                                                                                                                                                                                                                                                                                                                           AAC86407 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Anti-sense oligo:nucleotide(s) complementary to for treating cancers, e.g. lymphoma(s) and some
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-DEC-1988;
24-MAR-1994;
                               Example 2; Page 23; 38pp; English.
                                                                                                                          Zangemeister-Wittke U,
                                                                                                                                                (UYZU-) UNIV ZUERICH.
                                                                                                                                                                      30-APR-1999;
                                                                                                                                                                                             26-APR-2000; 2000WO-EP03708
                                                                                                                                                                                                                    09-NOV-2000
                                                                                                                                                                                                                                        WO200066724-A2
                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                       restenosis; fibrosis;
                                                                                                                                                                                                                                                                                                Human; bcl-xL;
                                                                                                                                                                                                                                                                                                                       Human bcl-xL and bcl-2 mRNA antisense control sequence
                                                                                                                                                                                                                                                                                                                                               28-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                     AAC86407;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           especially
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (UYPE-) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                   30 CAGCGTGCGCCATCCTTCCC 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 cagcgtgcgccatccttccc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1998-229881/20
                                                                                                    2001-015981/02
                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1; Columns 3-4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lymphomas and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BP; 6 A; 8 C; 13 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PENNSYLVANIA
                                                                                                                                                                      99GB-0010119
                                                                                                                                                                                                                                                                                                 bcl-2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     88US-0288692
94US-0217082
                                                                                                                                                                                                                                                                                                                                                                                           RNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21pp; English.
                                                                                                                                                                                                                                                                                       psoriasis;
                                                                                                                                                                                                                                                                                                apoptosis;
                                                                                                                          Luedke G,
                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            some
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                           ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 20;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            leukaemias.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 T; 0 other;
                                                                                                                                                                                                                                                                                        SS
                                                                                                                                                                                                                                                                                                antisense;
                                                                                                                          Huesken
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB :
                                                                                                                          D;
                                                                                                                                                                                                                                                                                                  cancer; allergic disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BCL-2 mRNA -
leukaemia(s)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                        C02.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              formation of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       expression,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
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present invention provides antisense nucleotides which hybridise to human bcl-xL and bcl-2 mRNA sequences. The bcl-xL and bcl-2 proteins

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                 This sequence is a nuclease-resistant p-ethoxy antisense oligonucleotide which specifically binds to the translation initiation site of human Bcl-2 mRNA. This oligonucleotide can be used in a method to treat Bcl-2 related disease in humans and animals, e.g. cancer especially follicular lymphoma (FL), leukaemia, plasma cell dyscrasia, cancer of breast, prostate and colon, or autoimmune diseases.
                                                                                                             Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                 Claim 4; Page 30; 69pp; English.
                                                                                                                                                                                                                                                    Composition comprising oligo:nucleotide anti-sense to Bcl-2 useful for, e.g. treatment of Bcl-2 related disease such as follicular lymphoma and auto-immune disease
                                                                                                                                                                                                                                                                                                                 WPI; 1998-239841/21
                                                                                                                                                                                                                                                                                                                                                                                               04-OCT-1996;
                                                                                                                                                                                                                                                                                                                                        Lopez-Berestein G, McDonnel TJ,
                                                                                                                                                                                                                                                                                                                                                                   (TEXA ) UNIV TEXAS SYSTEM.
                                                                                                                                                                                                                                                                                                                                                                                                                        03-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bcl-2; antisense; disease; treatment; cancer; follicular lymphoma; leukaemia; plasma cell dyscrasia; breast; prostate; colon; autoimmune diseases; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W09814172-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Liposomal bcl-2 antisense polynucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-JUL-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAV11591 standard; DNA; 18 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HOMO sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAV11591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 are involved in apoptosis, and the antisense strands can be used to inhibit them and possibly lead to cell death. The nucleic acids of the invention can be used in the treatment of cancer, particularly colorectal, gastric, prostate, thyroid, renal, breast and lung cancers, neuroblastoma and melanoma, restenosis, fibrosis, psoriasis and certain
    1
                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 20 BP; 2 A; 10 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
les 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 cagcgtgcgccatccttcc 19
cagcgtgcgccatccttc 18
                cagcgtgcgccatccttc 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 cagcgtgcgccatccttcc 20
                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                            96US-0726211
                                                                                                                                                                                                                                                                                                                                                                                                                     97WO-US18348
                                                                 100.08;
                                                                            90.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.08;
                                                              Score 18; DB 19;
Pred. No. 14;
                                                    0
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Pred. No.
                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                      Tara AM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 22;
                                                                                                                                                                                                                                                                                                                                     Tormo M;
                                               0;
                                                                      Length 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 20;
                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                             0,
                                                                                                                                                                                                                                                                               gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                           0,
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AAC65064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
                                                                                      The present invention is concerned with antisense oligonucleotides containing a number of degenerate bases and with a modified backbone which can be used to direct cleavage of target RNA molecules. The use of degenerate bases reduces the risk of immune activation following injection into animals, which causes deleterious side effects associated with many therapeutic antisense oligonucleotides. Sequences AAC65029-C65077 are antisense oligonucleotides and PCR primers used in assays to demonstrate the effects of the sequences of the invention.
                                                                  Sequence 21 BP; 2 A; 9 C; 4 G; 4 T; 2 other;
                                                                                                                                                                                                                                                  Antisense oligonucleotides containing degenerate and/or universal bases, and modified backbone linkages is useful to target therapeutic genes, preferably anti-apoptosis or chemoresistance genes
                                                                                                                                                                                                                                Example 7; Fig 3; 32pp; English.
                                                                                                                                                                                                                                                                                                                    WPI; 2000-679502/66.
                                                                                                                                                                                                                                                                                                                                                                             (OASI-) OASIS BIOSCIENCES INC
                                                                                                                                                                                                                                                                                                                                                                                                            08-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                   07-APR-2000; 2000WO-US09293.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200061810-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        bcl; protein kinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Antisense oligonucleotide; RNA molecule cleavage; immune activation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAC65064;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human bcl genes antisense sequence #8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-FEB-2001
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                  Similarity
                                                                                                                                                                                                                                                                                                                                                  Riley TA;
    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                            99US-0128377
               88.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C; PKC;
               Pred. No.
                        Score 17.6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PCR primer; ss.
Mismatches
                          DB 21;
                        Length
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В
                                      Matches
                                                     Query Match
                                             Best Local
     ω
          1 cagcgtgcgccatccttcc 19
cagcgtgcgccatnyttcc 21
                                Indels
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Search completed: June 28, Job time: 8077 sec 2002, 22:40:01

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Page 8

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Title:
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No.
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                              Score
                                                                 seq length:
seq length:
                                   Issued_Patents_NA:*
1: /cgn2_6/ptodata/1,
2: /cgn2_6/ptodata/1,
3: /cgn2_6/ptodata/1,
4: /cgn2_6/ptodata/1,
5: /cgn2_6/ptodata/1,
6: /cgn2_6/ptodata/1,
    Query
Match
                                                                                                                                                                                                                                                                                                                                                                                 100.0
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14.684 Million cell updates/sec
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IDENTITY_NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen
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        000000000000000
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/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/B_COMB.seq:*
/cgn2_6/ptodata/1/ina/backfiles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
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   B
US-08-217-082A-1
US-08-465-485A-7
US-08-465-485A-7
US-09-080-285-1
US-09-080-285-7
US-09-379-718-1
US-09-379-718-2
US-09-379-718-2
US-09-379-718-2
US-09-379-718-2
US-08-217-082A-2
US-08-217-082A-11
US-08-217-082A-11
US-08-217-082A-12
US-08-607-269-8
US-08-607-269-8
US-08-607-269-8
US-08-607-269-8
US-08-869-311-13
PCT-US95-13-52-18
US-08-217-082A-17
US-08-217-082A-17
US-08-217-082A-17
US-08-217-082A-17
US-08-217-082A-17
US-08-217-082A-17
US-08-465-485A-24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ltd.
                Sequence
                                                                                                                                                                                                                                                                                                                              Sequence
Sequence
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Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                            Description
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RESULT 1 15-08-217-082 Sequence 1, Patent No. Patent No	22233333333333333333333333333333333333
082A-1 1 Appl 1 THEORMA CANTELLE COF INVE COF IN	13 65.0 13 65.0 14 65.0 15 65.0 16 65.0 17 65.0 18
USENS WTH C VAK, arkwa arkwa arkwa oos,W 994 994 994 997 15,5/08/ 998 997 15,5/08/ 997 17,5/08/ 998 998 998	18 3 US 18 3 US 18 3 US 18 4 US 19 6 US 20 4 US 20 4 US 21 4 US 21 4 US 21 7 US 21 TO 21
LIGONUCLEOTI SLLS EXPRESS LELLAND, MAI OR Version 082A 082A 067-55 FWC	US-09-080-285-17 US-09-080-285-24 US-09-249-730-218 US-09-18-220-1 US-08-738-652-55 US-09-286-098-104
FOR INHIBITHE HUMAN & NEUSTADT,	37
TING THE BCL-2 GENE	Sequence 17, Appl Sequence 24, Appl Sequence 21, Appli Sequence 55, Appli Sequence 57, Appli Sequence 104, Appl Sequence 104, Appl Sequence 45, Appli Sequence 60, Appl Sequence 60, Appl Sequence 57, Appli Sequence 84, Appl Sequence 57, Appli Sequence 17, Appli Sequence 18, Appli Sequence 25, Appli Sequence 25, Appli Sequence 27, Appli Sequence 37, Appli Sequence 52, Appli

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US-08-217-082A-7/c
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                US-08-465-485A-1
                              RESULT
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GENERAL INFORMATION:
Sequence 1, Application US/08465485A
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Best Local Similarity
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/217,082A
FILING DATE: 24-MAR-1994
CLASSIFICATION: 435
PRIOR NOTITOTION: 435
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STREET: 2...
STREET: 2...
STREET: 2...
CITY: San Jose
CITY: California
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REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
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FILING DATE 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/288,692
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                    MOLECULE TYPE:
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SYSTEM: PC-DOS/MS-DOS
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22-DEC-1988
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100.0%; F
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Pred. No. 0.14;
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US-08-465-485A-7/c

; Sequence 7, Application US/08465485A

; Patent No. 5831066

; GENERAL INFORMATION:
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PRIOR APPLICATION NUMBER: US 08/124,256
APPLICATION NUMBER: US 08/124,256
FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
**POTTCATION NUMBER: US 07/840,716
                                                                                                                    TITLE OF INVENTION: Regulation of bc1-2 Gene Expression NUMBER OF SEQUENCES: 29
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LENGTH: 20 base pairs
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SOFTWARE: Patenti
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                                  CITY: Arlington
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                    STATE:
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Virginia
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1755 S. Jefferson Davis Hwy.,
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1755 S. Jefferson Davis Hwy., Suite 400
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SYSTEM: PC-DOS/MS-DOS
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100.0%; Pred. No. 0.14;
tive 0; Mismatches
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; ANTI-SENSE: NO
US-08-465-485A-7
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Reed, John
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/124,256
FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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REFERENCE/DOCKET NUMBER: 3335-070-55 CONT
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
                                                                                                                  COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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ATTORNEY/AGENT INFORMATION:
                                                                                    SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 2
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CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                 STREET: 1755 S. Jefferson Davis Hwy., Suite 400 CITY: Arlington STREE: Virginia
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                  APPLICATION NUMBER:
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RESULT
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SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
OFFICIAL 20 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 7, Application US/09080285 Patent No. 6040181
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                  APPLICATION NUMBER: US 08/465,485
FILING DATE: 05-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/124,256
FILING DATE: 20-SEP-1993
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/124,256
FILING DATE: 20-SEP-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Reed, John TITLE OF INVENTION: Regulation of bcl-2 Gene Expression NUMBER OF SEQUENCES: 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ANTI-SENSE:
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                  PRIOR APPLICATION DATA:
                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                    CLASSIFICATION:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0.
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                              APPLICATION NUMBER: FILING DATE: 21-FE
                                                                                                                                                                                                        APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                             ZIP: 22202
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APPLICATION NUMBER:
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1755 S. Jefferson Davis Hwy., Suite 400
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                                    21-FEB-1992
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US 07/288,692
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Pred. No. 0.14;
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FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:

22-DEC-1988

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US-09-379-718-2/c
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; ANTI-SENSE: N
US-09-080-285-7
                                                                                                                    GENERAL INFORMATION:
                                                                                                                                       Sequence 2, Application US/09379718 Patent No. 6310047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 1
LENGTH: 20
                                                                                                                                                                                                                                                                                                             Matches
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Best Local :
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APPLICANT: Kloster, Miriam
TITLE OF INVENTION: High Affinity DNA Binding Compounds as Adjuvants in
TITLE OF INVENTION: Antisense Technology
FILE REFERENCE: farrell/kloster
CURRENT APPLICATION NUMBER: US/09/379,718
CURRENT FILING DATE: 1999-08-24
NUMBER OF SEQ ID NOS: 5
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APPLICANT: Farrell, Nicholas
APPLICANT: Kloster, Miriam
TITLE OF INVENTION: High Affinity DNA Binding Compounds as Adjuvants
TITLE OF INVENTION: Antisense Technology
FILE REFERENCE: farrell/kloster
CURRENT APPLICATION NUMBER: US/09/379,718
CURRENT FILING DATE: 1999-08-24
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Best Local Similarity
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INFORMATION FOR SEQ ID NO: 7:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
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Conservative (
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Pred. No.
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US-08-217-082A-2
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SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 2
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Best Local Similarity
                                                                                                                                   TELEFAX: (408) 436-2075 INFORMATION FOR SEQ ID NO: 2:
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                               TOPOLOGY: 1
MOLECULE TYPE:
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                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 35 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                               APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION UNBER: US 07/288,692
FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
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                 ANTI-SENSE:
                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
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FILING DATE: 24-MAN
CLASSIFICATION: 439
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release "1"
                                                                 STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: San Jose
STATE: California
                                                                                                                                                                                                                   NAME: Fortney, Andrew D. REGISTRATION NUMBER: 34,
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24-MAR-1994
                             DNA (genomic)
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Pred. No.
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Query Match
Best Local Similarity

100.0%;

Score 20; DB 1; Pred. No. 0.15;

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US-09-080-285-2/c
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Matches
Sequence 2, Application US/09080285 Patent No. 6040181 GENERAL INFORMATION:
                                                                                                                                                                                                  Query Match
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                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 35 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 3335-070-55 CONT
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                           TOPOLOGY: 1
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US 07/288,692 FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 01
FILING DATE: 20-SEP-1993
                                                                                                                                                                                                                                                                ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: 1
FILING DATE: 21-FEB-
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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                                                                                                                                                                                Local
                                                                                                       30 CAGCGTGCGCCATCCTTCCC 11
                                                                                                                                                                                                                                                                                                        STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: 1755 S. CITY: Arlington
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/465,485A FILING DATE: 05-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM:
SOFTWARE: Patentl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STATE: Virginia COUNTRY: U.S.A. ZIP: 22202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE:
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                                                                                                                                    cagcgtgcgccatccttccc 20
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                                                                                                                                                                     Similarity 20; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fortney, Andrew D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2: P.C.
1755 S. Jefferson Davis Hwy., Suite 400
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                 (408) 436-2070
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-FEB-1992
                                                                                                                                                                                                                                                                          DNA (genomic)
                                                                                                                                                                                                                                                                                                      single
                                                                                                                                                                               100.0%; Score 20; DB 2; 100.0%; Pred. No. 0.15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Regulation of bcl-2 Gene Expression 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US 07/840,716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US 08/124,256
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US-08-217-082A-11
; Sequence 11, Application US/08217082A
; Patent No. 5734033
; Patent No. 5734033
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 12
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US-09-080-285-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
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                                                                                                                                                                                                  APPLICANT: Reed, John
TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES
TITLE OF INVENTION: GROWTH OF CELLS EXPRESSING
NUMBER OF SEQUENCES: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
                                                                                                                                                                            CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 05-JUN-1222
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 08/124,256
STREET: 22.
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APPLICATION NUMBER: US 0
FILING DATE: 22-DEC-1988
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FILING DATE: 20-SEP-
PRIOR APPLICATION DATA:
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TITLE OF INVENTION: Regulation of bcl-2 Gene Expression
NUMBER OF SEQUENCES: 29
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                                                                                                   ADDRESSEE: OBLON, SPIVAK, McCLELLAND, ADDRESSEE: P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30 CAGCGTGCGCCATCCTTCCC 11
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CLASSIFICATION:
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                                                          224 Airport Parkway
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100.0%; Pred. No. 0.15;
tive 0; Mismatches
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California

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; MOLECULE TYPE: other nucleic acid
; DESCRIPTION: Synthetic DNA
; ANTI-SENSE; YES
US-08-217-082A-11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
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INFORMATION FOR SEQ ID NO:
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CURRENT APPLICATION DATA:
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LENGTH: 17 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
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APPLICATION NUMBER:
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OTHER APPLICATION NUMBER: US 07/840,716
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                                                                                                                                                                                                        STREET: 22.
STREET: 22.
CITY: San Jose
CITY: California
T S.A.
                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Reed, John
TITLE OF INVENTION: ANTISENSE OLIGONUCLECTIDES FOR INHIBITING THE
TITLE OF INVENTION: GROWTH OF CELLS EXPRESSING THE HUMAN BCL-2 GENE
                                                                                                                                                                           COMPUTER READABLE FORM:
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PRIOR APPLICATION DATA:
                                                                         CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0
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nes 17; Conserv
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                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                              COUNTRY: U.S.A. ZIP: 95110
                  CLASSIFICATION:
                                APPLICATION NUMBER: US/08/217,082A
FILING DATE: 24-MAR-1994
                                                                                              SOFTWARE:
                                                                                                                                                                                                                                                                                              ADDRESSEE:
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                                                                                              PatentIn Release #1.0, Version #1.25
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                                                                                                                                                                                                                                                                                              P.C.
                                                                                                                                                                                                                                                                                                            OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              85.0%; Score 17; DB 1; Length 17; 100.0%; Pred. No. 4.1; tive 0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No. 5734033
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 100. Matches 16; Conservative
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO:
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US 0 FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: other nucleic DESCRIPTION: Synthetic DNA
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                             REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES FOR INHIBITING THE TITLE OF INVENTION: GROWTH OF CELLS EXPRESSING THE HUMAN BCL-2 GENE
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LENGTH: 17 base pairs
                                                                                                                          FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0'
FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FEB-1992
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE: 24-MAR CLASSIFICATION: 43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: San Jose
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT ADDRESSEE: P.C.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET:
                                                                                         NAME: Fortney, Andrew REGISTRATION NUMBER: 3
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                                                                           3335-067-55 FWC
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US-08-410-804-13/c
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DESCRIPTION: Synthetic DNA
; ANTI-SENSE: YES
US-08-217-082A-12
                                                                      Query Match 68.0%; Score 13.6; DB 1; Length 27; Best Local Similarity 80.0%; Pred. No. 2.2e+02; Matches 16; Conservative 0; Mismatches 4; Indels
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                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 27 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
                                                                                                                                                                                                                                                                                                                       TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/410,804
FILING DATE: 27-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 14-JUN-1994
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-LJ 1389
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZIP: 92122
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: 435
PRIOR APPLICATION NUMBER: US 08/259,514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Reed, John C.
APPLICANT: Sato, Takaaki
TITLE OF INVENTION: FAS ASSOCIATED PROTEINS
NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
ADDRESSEE: Cathryn Campbell
STREET: 4370 La Jolla Village Drive. Ste 700
20 CAGCGTGCGCCATGAATTCC 1
                     1 cagcgtgcgccatccttccc 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: 4370 La Jo
CITY: San Diego
STATE: California
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ZIP: 92122
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Search completed: June 28, 2002, 22:16:38 Job time: 8264 sec

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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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   GenEmbl: *
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.
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194.646 Million cell updates/sec
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_	AX283250	σ	18	51.4	18	45	ი
AX283183 Sequence	AX283183	σ	18	51.4	18	44	C
٠	563	6	18	51.4	18	43	a
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AX103899 Sequence	0389	6	18	51.4	18	41	c
	AX103863	σ	18	51.4	18	40	a
	AX103862	σ	18	51.4	18	39	a
	AX103809	φ	18	51.4	18	38	C
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AX083693 Sequence	AX083693	6	18	51.4	18	36	
	AX081353	σ	18	51.4	18	ယ <b>ပ</b> ာ	a
	AX063576	σ	18	51.4	18	34	a
	AX040403	6	18	51.4	18	33	a
	AX040169	6	18	51.4	18	32	a
	AX020954	6	18	51.4	18	31	o
AX020948	AX020948	6	18	51.4	18	30	a
AX015198	AX015198	σ	18	51.4	18	29	C
AR167448	AR167448	o,	18	51.4	18	28	O
AR154716	AR154716	σ	18	51.4	18	27	ဂ
AR146392	AR146392	σ	18	51.4	18	26	O
AR146347	AR146347	6	18	51.4	18	25	Q
AR140496	AR140496	0	18	51.4	18	24	a
	AR116926	0	18	51.4	18	23	Ω
AR052624 Sequence	AR052624	6	18	51.4	18	22	O
AR052619 Sequence	AR052619	6	18	51.4	18	21	o
AX113709 Sequence	AX113709	6	70		18.4	20	O
80	AX113708	6	60	52.6	18.4	19	a
Sequence	186720	6	27	ω ·	18.6	18	
Se	143661	δ	27	ω.	18.6	17	
26	AR004426	σ	27	ω.	18.6	16	
694 Šequenc	AX083694	σ	19		19	15	O
Sequence	196088	on .	20	57.1	20	14	,
82 Se	N	on i	20	57.1	20	1 3	0
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O	AX211670	O	20	57.1	20	11	a
	AX211669	σ	20	7.	20	10	
		6	20	7.	20	9	C
6023		0	20	57.1	20	8	
6022	AR176022	6	20		20	7	C
2609	09	σ	20	7.	20	0	
5260	052	σ	20	7.	20	υı	C
124 Sequence	A76124	σ	22		22	4	O
6123 Sequence	7612	σ	22	2	22	ω	C
083 Se	യ	o 1	35	100.0	ω ( 5	NI	
AR052604 Sequence	AR052604	6	35	100.0	ω 5	щ	

### ALIGNMENTS

REFERENCE AUTHORS TITLE JOURNAL FEATURES KEYWORDS SOURCE ORGANISM LOCUS
DEFINITION
ACCESSION RESULT AR052604 BASE COUNT ORIGIN VERSION source Sequence 2 from patent US AR052604 Regulation of bcl-2 gene expression Patent: US 5831066-A 2 03-NOV-1998; Location/Qualifiers Unclassified.

1 (bases 1 to 35)

Reed, J.C. AR052604 Unknown Unknown. AR052604.1 GI:5975968 6 Ø /organism="unknown" 8 c 13 g 35 bp 5831066. æ đ DNA linear PAT 29-SEP-1999

Result No.

Score

Query Match Length DB

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Description

Query Match Best Local Similarity

100.0%;

Score 35; DB 6; Pred. No. 0.00024;

Length 35;

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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RESULT 4
A76124/c
LÓCUS
DEFINITION
                                                                                                                                                                                                              REFERENCE
AUTHORS
TITLE
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SOURCE
ORGANISM
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ORIGIN
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A76123/c
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AUTHORS
TITLE
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196083
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DEFINITION
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ORIGIN
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Sequence 3 from Patent W093202000.
A76123
A76123.1 GI:6088259
                                                                                           22;
Sequence
         A76124
                                                                                                                                                                                                                                        unidentified unclassified.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2 from patent US 196083
                                                                                                                                                                                 MODIFIED CELLS AND METHOD OF TREATMENT
Patent: WO 9320200-A 3 14-OCT-1993;
IMP CANCER RES TECH (GB); EVAN GERARD
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unknown
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                                                                                                                                                                                                                        Evan,
                                                                                                                                                                                                                                                            unidentified
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AR052609.1
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A76124.1
1 (bases 1 to 20)
Reed, J.C.
Regulation of bc1-2 gene expression
Patent: US 5831066-A 7 03-NOV-1998;
Location/Qualifiers
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22; Conserv
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Patent: US 6310047-A 1 30-OCT-2001;
Location/Qualifiers
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Sequence 1 from patent US
AR176022
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AR176023
AR176023.1 GI:17917322
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                                                                                                                        technology Patent: US 6310047-A 2 30-OCT-2001;
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Farrell, N. and Kloster, M.
High affinity DNA binding compounds as
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synthetic construct
artificial sequence.
1 (bases 1 to 20)
1 (bases 1 to 20)
Barenholz,Y., Hirsch-Lerner,D., Cohen,R., Dagan,A. and Gatt,S.
Detection of binding of charged species using ph- or
potential-sensitive probes
patent: WO 0159156-A 1 16-AUG-2001;
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Sequence 1 from Patent W00159156.
AXX11669
AXX211669.1 GI:15523901
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Sequence 7 from Patent W00066724
AX045387
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Zangemeister-Wittke,U.,
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Barenholz,Y., Hirsch-Lerner,D., Cohen,R., Daga Detection of binding of charged species using
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Drug-carrier complexes and methods of use Patent: WO 0110468-A 8 15-FEB-2001;
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Sequence 8 from Patent WO0110468.
AX083694 GI:13185422
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 20;
                                                         thereof
                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                               gene expression
                                                                                                                                                                            PAT 28-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PAT 01-DEC-1998
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/db\_xref="taxon:32630" /note="Synthetic Oligonucleotide-c indicates an RNA base" ORIGIN 2 a 9 c 4 g 4 t

Ouery Match 54.3%; Score 19; DB 6; Length 19; Best Local Similarity 100.0%; Pred. No. 1.8e+03; Matches 19; Conservative 0; Mismatches 0; Indels 0; Gaps

0;

Qy 17 gatggcgcacgctgggaga 35

Search completed: June 28, 2002, 22:10:45 Job time: 8336 sec

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Maximum DB seg length: 0
Maximum DB seg length: 75
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                                                                                                                O O
                                                                                                                                                                                                                                    No.
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                                                                                                                                                                                                                                    Score
       35
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1: /SIDS1/gcgdata/gc
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Maximum Match 100%
Listing first 45 summaries
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/SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1983.DAT:*
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    AAQ86644
AAV19652
AAQ49816
AAQ496649
AAQ19651
AAV19657
AAD15276
AAD12300
                                                                                                                                                                                                                                                                                                       SUMMARIES
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Human bcl-2 oligon
Bcl-2 antisense ol
Bcl-2 antisense ol
Bcl-2 translation
Human bcl-2 antise
Human bcl-2 transc
Human Bcl-2 TRNA t
AM-TIS sulphate-ol
                                                                                                                                                                                                                                    Description
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0000000000

CpG motif for immu Nucleotide sequenc

000000000000000

### ALIGNMENTS

#### RESULT 4.

AAQ86644 standard; DNA; 35 BP

## AAQ86644;

27-SEP-1995 (first entry)

Bcl-2 translation initiation region.

Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy; leukemia; lymphoma; solid tumor; breast cancer; autoimmune disease;

# Synthetic

WO9508350-A

# 30-MAR-1995.

20-SEP-1994; 94WO-US10725

20-SEP-1993; 93US-0124256

# (REED/) REED J

Reed JC;

# WPI; 1995-139394/18

O a

Anti-code oligomers which bind to bcl-2 mRNA - of human solid tumours, esp. breast cancer  $\,$ for the treatment

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RESULT
AAV19652
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XXCCCCCXXXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
                               This is a human bcl-2 oligonucleotide based on which an antisense oligonucleotide complementary to the translation initiation site of the human bcl-2 mRNA can be constructed. Bcl-2 antisense oligonucleotides straddle strategic sites such as the translation initiation site, donor and acceptor splicing sites, or sites for transportation or degradation. Blocking translation at such strategic sites prevents the formation of a functional bcl-2 gene product. These oligonucleotides may be used for treating cancers associated with high levels of bcl-2 gene expression,
                                                                                                                                                                                                                        WPI;
                                                                                                                                                          Claim
                                                                                                                                                                              Anti-sense oligo:nucleotide(s) complementary to BCL-2 mRNA for treating cancers, e.g. lymphoma(s) and some leukaemia(s)
                           especially
                                                                                                                                                                                                                                                  Reed J;
                                                                                                                                                                                                                                                                                                    24-MAR-1994;
                                                                                                                                                                                                                                                                                                                21-FEB-1992;
22-DEC-1988;
                                                                                                                                                                                                                                                                                                                                                      24-MAR-1994;
                                                                                                                                                                                                                                                                                                                                                                               31-MAR-1998
                                                                                                                                                                                                                                                                         (UYPE-)
                                                                                                                                                                                                                                                                                                                                                                                                      US5734033-A
                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       translation-initiation site in the mRNA coding strand of the human bcl-2 gene and is complementary to this region. It reduces the expression of bcl-2 gene product thereby inducing programmed cell death of certain cancer cells. The corresp. sense bcl-1 sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Antisense oligonucleotide; bcl-2 gene; lymphoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human bcl-2 oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAV19652;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAV19652 standard; DNA; 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 35 BP; 6 A; 8 C; 13 G; 8 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             was synthesized for use as a control
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The antisense oligonucleotide TI-AS (AAQ86643) straddles the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      _
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                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                      1; Columns 3-4; 21pp; English.
                                                                                                                                                                                                                                                                           UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                         lymphomas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Page 13; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                          PENNSYLVANIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                  92US-0840716.
88US-0288692.
94US-0217082.
                                                                                                                                                                                                                                                                                                                                                    94US-0288692
                         and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
                         some
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Pred. No.
                         Leukaemias.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3e-05;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               leukaemia; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
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Query Match

100.0%;

Score

35;

DB 19;

Length

35;

Sequence 35

BP;

6 A; 8 C;

13 G; 8 T; 0 other;

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RESULT 4
AAQ49817/C
ID AAQ498
XX
AC AAQ498
XX
AC O3-MAY
XX
DE BC1-2
XX
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                                                                                                                                                                                                  RESULT 3
AAQ49816/c
ID AAQ498
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                                                                                                                                                   Matches
                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches 35; Conserv
                                                                                                                                                                                                                                                                                                                                                            Evan
        Bcl-2 antisense oligonucleotide
                            03-MAY-1994
                                               AAQ49817;
                                                               AAQ49817 standard;
                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                           A DNA construct comprising the bcl-2 coding sequence under control of elements allowing its expression is claimed. Myc-induced cell death can be inhibited in cultured cells by expressing bcl-2. Myc-induced cell death can be de-inhibited in tumour cells by admi
                                                                                                                                                                                                                                                                          Disclosure; Page 58; 109pp; English
                                                                                                                                                                                                                                                                                          Treating tumour cells by de-inhibiting Myc-induced apoptosis seps. by inhibiting expression of the BCL-2 oncogene e.g. with antisense oligo:nucleotide(s), also increasing survival of cultured cells by expressing BCL-2
                                                                                                                                                                                                                                                                                                                                           WPI; 1993-336908/42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAQ49816 standard;
                                                                                                                                                                                                                                                                                                                                                                             (IMCR ) IMPERIAL CANCER RES TECHNOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                02-APR-1992;
02-APR-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                              14-OCT-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cell death;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bc1-2 antisense oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-MAY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                           02-APR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9320200-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     expression;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAQ49816;
                                                                                                                        11 gggaaggatggcgcacgctggg
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                                                                                                                                                                                                                   bc1-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 cttttcctctgggaaggatggcgcacgctgggaga 35
                                                                                                               GGGAAGGATGGCGCACGCTGGG 1
                                                                                                                                                                                                                                                                                                                                                            GI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22;
                                                                                                                                                           Similarity
                                                                                                                                                                                                  22
                                                                                                                                                                                                                   antisense oligonucleotides
                                                                                                                                                                                                  BP;
                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             apoptosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative (
                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                92GB-0007275
92GB-0007276
                                                                                                                                                                                                                                                                                                                                                                                                                           93WO-GB00686
                                                                                                                                                                                                  N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SS
                                                                                                                                                                                                 A;
                                                                 RNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA;
                                                                                                                                                            62.9%;
                                                                                                                                                                                                  12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              inhibition;
                                                                 22
                                                                                                                                                                                                C;
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                                                                 ВP
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                                                                                                                                                   0;
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                                                                                                                                                            Score 22;
Pred. No.
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                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              de-inhibition;
                                                                                                                                                                                                 0 other;
                                                                                                                                                           6.
BB
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6;
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                                                                                                                                                   Indels
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                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
```

synthetic. expression; cell death;

apoptosis; inhibition; de-inhibition; bcl-2 oncogene; myc; ss.

WO9320200-A

Evan GI;

WPI; 1993-336908/42.

Treating tumour cells by de-inhibiting Myc-induced apoptosis esp. by inhibiting expression of the BCL-2 oncogene e.g. with antisense oligo:nucleotide(s), also increasing survival of

A DNA construct comprising the bcl-2 coding sequence under control of elements allowing its expression is claimed. Myc-induced cell death can be inhibited in cultured cells by expressing bcl-2.

death can be deth can be de-inhibited in tumour cells by admin.

Myc-induced cell death can be de-inhibited in tumour cells by admin.

Sequence 22 BP; 2 A; 12 C; 4 G; 4 U; 0 other;

bcl-2 antisense oligonucleotides.

Disclosure; Page 58; 109pp; English. cultured cells by expressing BCL-2 (IMCR ) IMPERIAL CANCER RES TECHNOLOGY.

0

02-APR-1992; 02-APR-1992; 02-APR-1993; 14-OCT-1993.

92GB-0007275. 92GB-0007276.

93WO-GB00686

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g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAV19651/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
Anti-code oligomers which bind to bcl-2 \mathtt{mRNA} - for the treatment of human solid tumours, \mathtt{esp.} breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 12; Page 33; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        programmed cell death (DNA tragmentation).

programmed cell death (DNA tragmentation).

line RS11846. The oligonucleotides are phosphodiesters targeted gainst the translation initiation site (AA086650-55) or the 5'-cap against the translation initiation site (AA086650-55) or the sequence region (AA086656-58) of human bcl-2 pre-mRNAs. A bcl-2 sense sequence region (AA086656-58) of human bcl-2 pre-mRNAs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Antisense oligonucleotides were tested for their ability to induce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 20 BP; 4 A; 4 C; 10 G; 2 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (AAQ86649) was used as a control.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV19651 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human bcl-2 antisense oligonucleotide 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAV19651;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Antisense oligonucleotide; bcl-2 gene; lymphoma; leukaemia; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cancer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                          31-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                      US5734033-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11 gggaaggatggcgcacgctg 30
                                                                                                                                                                                                                                                                                                                                                                                             24-MAR-1994;
                                                                                                                                                                                                                                                                                                                                                    21-FEB-1992;
22-DEC-1988;
                                                                                                                                                                                                                                                                                                       (UYPE-) UNIV PENNSYLVANIA.
                                       oligonucleotides are phosphorothicate derivatives and can straddle strategic sites such as the translation initiation site, donor and sceptor splicing sites, or sites for transportation or degradation of Blocking translation at such strategic sites prevents the formation of a functional bcl-2 gene product. These oligonucleotides may be used for translating cancers associated with high levels of bcl-2 gene expression, treating cancers associated with high levels of bcl-2 gene expression,
                                                                                                                              This antisense oligonucleotide is complementary to the translation initiation site of the human bol-2 mRNA. The Bcl-2 antisense
                                                                                                                                                                                                  Anti-sense oligo:nucleotide(s) complementary to BCL-2 mRNA - useful for treating cancers, e.g. lymphoma(s) and some leukaemia(s)
                                                                                                                                                                                                                                                 WPI; 1998-229881/20.
                                                                                                                                                                                                                                                                                Reed J;
                                                                                                                                                                                                                                                                                                                                      24-MAR-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 gggaaggatggcgcacgctg 20
                                                                                                                                                                        Claim 6; Columns 3-4; 21pp; English.
Sequence 20 BP; 2 A; 10 C; 4 G; 4 T; 0 other;
                            especially lymphomas and some leukaemias
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   death (DNA fragmentation) in the human lymphoma
                                                                                                                                                                                                                                                                                                                                         88US-0288692.
94US-0217082.
                                                                                                                                                                                                                                                                                                                                                                    92US-0840716.
                                                                                                                                                                                                                                                                                                                                                                                                  94US-0288692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           57.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
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Š B

11 gggaaggatggcgcacgctggg 32

22 GGGAAGGATGGCGCACGCTGGG 1

Matches Query Match

22;

Conservative

0;

Mismatches

Local

Similarity

62.9%;

Score 22; pred. No.

6.6;

Indels

0

Gaps

DB 14; Length 22;

AAQ86649

AAQ86649 standard; DNA; 20 BP

XXX OX XXX DE XXX

lymphoma; programmed cell death; ss

synthetic.

30-MAR-1995 WO9508350-A. Bc1-2 translation initiation site region.

Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy;

27-SEP-1995 AAQ86649;

(first entry)

(REED/) REED J C.

Reed JC;

20-SEP-1993; 20-SEP-1994;

> 93US-0124256. 94WO-US10725.

WPI; 1995-139394/18.

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AAD15276/c
                                                     RESULT
                                                                                                                                         Matches
                                                                                                                                                               Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                   AAD15276 standard; DNA; 20 BP
                                                                                                                                                                                                                This oligonucleotide is used as a control in measuring DNA fragmentation as an indicator of bcl-2 antisense oligonucleotide mediated programmed cell death in human lymphoma cells. Bcl-2 antisense oligonucleotides straddle strategic sites such as the translation initiation site, donor and acceptor splicing sites, or sites for transportation or degradation. Blocking translation at such strategic sites prevents the formation of a treating cancers associated with high levels of bcl-2 gene expression,
                                                                                                                                                                                        Sequence 20 BP; 4 A; 4 C; 10 G; 2 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-FEB-1992;
22-DEC-1988;
24-MAR-1994;
                                                                                                                                                                                                                                                                                                                                           Disclosure; Column 19; 21pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                            11 gggaaggatggcgcacgctg 30
                                                                                                                                                                                                                                                                                                                                                                       Anti-sense oligo:nucleotide(s) complementary to BCL-2 mRNA - useful
                                                                                                                                                                                                                                                                                                                                                            for treating cancers, e.g. lymphoma(s) and some leukaemia(s)
                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1998-229881/20
                                                                                                                                                                                                                                                                                                                                                                                                                                                            (UYPE-) UNIV PENNSYLVANIA.
                                                                               1 gggaaggatggcgcacgctg 20
                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-MAR-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US5734033-A
                                                   æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HOMO sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Antisense oligonucleotide; bcl-2 gene; lymphoma; leukaemia; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human bcl-2 transcription initiation sense (TI-S) oligonucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12-JUN-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAV19657;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAV19657 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20 GGGAAGGATGGCGCACGCTG 1
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                                                                                                                                               Similarity
                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94US-0217082
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94US-0288692
                                                                                                                          57.1%; Score 20; 100.0%; Pred. No. tive 0; Mismatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    57.1%; 50.
100.0%; Pr
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                                                                                                                             Mismatches
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                                                                                                                                                 DB 19;
                                                                                                                          0;
                                                                                                                                                Length 20;
                                                                                                                         Indels
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                                                                                                                       0,
                                                                                                                  Gaps
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AAD12300
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Unidentified
                        AM-TIS sulphate-oligonucleotide; DNA transfection; fluorophore;
                                                   AM-TIS sulphate-oligonucleotide to detect binding of charged species.
                                                                                                  06-NOV-2001 (first entry)
                                                                                                                                           AAD12300;
                                                                                                                                                              AAD12300 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to a liposomal composition of antisense oligonucleotides targetted to the translation initiation site of human Bcl-2 mRNA. The invention also relates to a method useful for treating lymphomas, chronic lymphocytic leukaemia and plasma cell dysorasias; solid tumours like those associated with breast, prostate, liver, pancreas, lung, brain, ovary, testes, skin, head, neck, oesophagus, stomach, kidney and colon cancer; and immune disorders. The present DNA reasiantiation initiation site of human Bcl-2 mRNA. This antisense oligonucleotide targetted to the oligonucleotide which is preferably composed of a nuclease resistant hardwarm is able to institute the machine means the present by composed of a nuclease resistant
                                                                                                                                                                                                                                                                                                                                                                                  Sequence 20 BP; 2 A; 10 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                           backbone is able to inhibit the production of Bcl-2 protein.
                                                                                                                                                                                                                                               20 GGGAAGGATGGCGCACGCTG 1
                                                                                                                                                                                                                                                                           11 gggaaggatggcgcacgctg 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 1; Page 31; 63pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             component, useful for treating Bcl-associated diseases, e.g. cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Compositions comprising short antisense oligonucleotides and a lipid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-529911/58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tari AM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (TEXA ) UNIV TEXAS SYSTEM.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-FEB-2001; 2001WO-US40159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; Bcl-2 protein; cytostatic; lymphoma; cancer therapy; antisense; chronic lymphocytic leukaemia; plasma cell dyscrasia; cancer; pancreas; breast; liver; lung; brain; ovary; stomach; prostate; neck; oesophagus; testes; skin; head; kidney; colon; immune disorder; liposome; ss.
                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W0200160998-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human Bcl-2 mRNA targetted liposomal antisense oligonucleotide #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-NOV-2001 (first entry)
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                                                                                                                                                                                                                                                                                                                                  Similarity
               charged species; lipid vesicle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lopez-Berestein G, Gutierrez-Puente Y;
                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                      57.1%; Score 20;
                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                    DB 22;
                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                Length 20;
                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                              Gaps
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RESULT 10
AAD12301/c
XXEXEXXXXX
                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                    Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cc species at a surface, where binding alters the local pH or the surface potential, by stable incorporation of a probe at the surface. Probe cc consists of a pH- or potential-sensitive fluorophore attached to either case a steroid or a lipid having at least two alkyl or alkenyl chains of at cleast 14 carbons. A change in fluorescence from fluorophore when a cc species binds to, or is released from, the surface is detected.

Cc The method is used for determining the extent of binding of species, cc particularly a biomolecule (nucleic acid or protein) to a surface or its crelease from the surface. Particularly the surface is a lipid vesicle compared to the surface of the surface or its creding used for DNA transfection or a cell membrane. The method is also cuseful for monitoring transfection of DNA to cells, in vivo or in vitro. The method is used for detecting both specific and non-specific conteractions at the surface. The lipid/steroid component ensures stable incorporation of the probe, thus stable and reproducible observation of conjodes winches the binding of charged conjodes winches and conjodes and conjodes which is used to detect the binding of charged conjodes winches and conjodes the binding of charged conjodes winches and conjodes winches and conjodes winches and conjodes winches and conjodes winches used to detect the binding of charged conjodes winches and winches the binding of charged conjodes winches which is used to detect the binding of charged conjodes winches and winch
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Determining binding of compounds to a surface, particularly of DNA to transfection vesicle, using lipid-coupled fluorophore as pH- or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  W0200159156-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     potential-sensitive probe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Barenholz Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-FEB-2000; 2000US-0181693
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to a method for determining the binding
Bcl2-TIAS sulphate-oligonucleotide; DNA transfection; fluorophore;
                                     Bcl2.TTAS sulphate-oligonucleotide to detect binding of charged species
                                                                                  06-NOV-2001
                                                                                                                          AAD12301;
                                                                                                                                                                       AAD12301 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 4; Page 20; 39pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (YISS ) YISSUM RES DEV CO HEBREW UNIV JERUSALEM
                                                                                                                                                                                                                                                                                                  11 gggaaggatggcgcacgctg 30
                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                         1 gggaaggatggcgcacgctg
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                                                                                                                                                                                                                                                                                                                                                                   20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B₽;
                                                                                                                                                                                                                                                                                                                                                                   Conservative
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                                                                                  (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (fluoresceinisothiocyanate)"
1..20
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/note= "Sulphate-Oligodeoxynucleotide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note= "Optionally labelled with FITC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /mod_base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Α;
                                                                                                                                                                                                                                                                                                                                                       57.1%; >-
100.0%; Pr
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 C;
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                                                                                                                                                                                                                                                                                                                                                                                    Score 20;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         G;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N
                                                                                                                                                                                                                                                                                                                                                                Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0 other;
                                                                                                                                                                                                                                                                                                                                                                                       DB 22;
44;
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                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                         Length 20
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RESULT 11
AAF77808/c
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Best Local S
                                                                                                                                                                                                                                                                                                          Matches
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The method is used for determining the extent of binding of species, particularly a biomolecule (nucleic caid or protein) to a surface or its release from the surface. Particularly the surface is a lipid vesicle being used for DNA transfection or a cell membrane. The method is also useful for monitoring transfection of DNA to cells, in vivo or in vitro. The method is used for detecting both specific and non-specific interactions at the surface. The lipid/steroid component ensures stable incorporation of the probe, thus stable and reproducible observation of interactions. The present DNA sequence is an Bcl2-TIAS sulphate-oligodeoxynucleotide which is used to detect the binding of charged
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           biomolecule; charged species; lipid vesicle;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to a method for determining the binding of a species at a surface, where binding alters the local pH or the surface potential, by stable incorporation of a probe at the surface. Probe consists of a pH or potential sensitive fluorophore attached to either a steroid or a lipid having at least two alkyl or alkenyl chains of at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Determining binding of compounds to a surface, particularly of DNA to transfection vesicle, using lipid-coupled fluorophore as pH- or \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-497084/54.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (YISS ) YISSUM RES DEV CO HEBREW UNIV JERUSALEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-FEB-2000; 2000US-0181693.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 09-FEB-2001; 2001WO-IL00134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-AUG-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  potential-sensitive probe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200159156-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20 BP; 2 A; 10 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 4; Page 20; 39pp; English.
AAF77808;
                                                   AAF77808 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        least 14 carbons. A change in fluorescence from fluorophore when a
                                                                                                                                                                                                                          11 gggaaggatggcgcacgctg 30
                                                                                                                                                                                          20 GGGAAGGATGGCGCACGCTG 1
                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note= "Sulphate-Oligodeoxynucleotide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mod_base= OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (fluoresceinisothiocyanate)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'note= "Optionally labelled
                                                                                                                                                                                                                                                                                                                                 57.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      base=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ь
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                                                      ВР
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                                                                                                                                                                                                                                                                                                          0;
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Pred. No.
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                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ₽,
                                                                                                                                                                                                                                                                                                                                                                 DB
                                                                                                                                                                                                                                                                                                                                    44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Dagan
                                                                                                                                                                                                                                                                                                                                                                 22;
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                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ۶
                                                                                                                                                                                                                                                                                                                                                           Length 20;
                                                                                                                                                                                                                                                                                                          Indels
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                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                             Gaps
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DXXXX

29-MAY-2001

(first entry)

Вb Ω

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В
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                                                                                                                                                                                                                                                                                                                                                                                       AAF77809
                                                                                                                                                                                                                                              RESULT
                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                oligodeoxynucleotide to cells. The method comprises forming a complex comporising the antisense oligonucleotide and a polynuclear platinum compound, and providing the complex to the cells. The present sequence is an antisense oligonucleotide for BCL-2, which may be used in the present invention. BCL-2 is a suppressor of apoptosis and its expression in cancer cells may contribute to the resistance of cancer cells to apoptosis. The complex of the present invention is useful for treating cancer and any other disease amenable to the treatment by antisense
        24-AUG-1999;
                                                                                                      Unidentified
                                                                                                                                               Control sense oligodeoxynucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and a cells
                               22-AUG-2000;
                                                        01-MAR-2001
                                                                             WO200113914-A1
                                                                                                                         BCL-2; apoptosis;
                                                                                                                                                                         29-MAY-2001
                                                                                                                                                                                                                     AAF77809 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                              oligonucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention relates to a method for delivering an antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 1; Page 27; 52pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Delivering antisense oligodeoxynucleotide to cells for treating cancers, involves forming a complex comprising the oligodeoxynucleotide cancers a polynuclear platinum compound, and providing the complex to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200113914-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Farrell NP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (UYVI-) UNIV VIRGINIA COMMONWEALTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-AUG-2000; 2000WO-US22957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BCL-2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BCL-2 antisense oligodeoxynucleotide
                                                                                                                                                                                                                                                                                          11 gggaaggatggcgcacgctg 30
                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                              12
                                                                                                                                                                                                                                                                                 GGGAAGGATGGCGCACGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001-257588/26.
                                                                                                                                                                                                                                                                                                                             20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              apoptosis;
                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                       BP; 2 A; 10
                                                                                                                                                                                                                                                                                                                             Conservative
                               2000WO-US22957
                                                                                                                                                                        (first entry)
        99US-0379718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9908-0379718
                                                                                                                       cancer; cytostatic; antisense gene therapy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cancer; cytostatic;
                                                                                                                                                                                                                                                                                                                       57.1%; ~
100.0%; Pr
                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                                     Ç;
                                                                                                                                                                                                                                                                                                                                                                                     4 G;
                                                                                                                                                                                                                       ВP
                                                                                                                                                                                                                                                                                                                                        Score 20;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                    4 T;
                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                     0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antisense gene therapy; ss
                                                                                                                                                                                                                                                                                                                                       DB 44;
                                                                                                                                                                                                                                                                                                                                                22;
                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                  Length 20;
                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                          0,
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Example 2; Page 23; 38pp; English.

present invention human bcl-xL and h

provides antisense nucleotides which hy bcl-2 mRNA sequences. The bcl-xL and bcl

hybridise

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proteins

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AAC86407/c
В
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to a method for delivering an antisense oligodeoxynucleotide to cells. The method comprises forming a complex comprising the antisense oligonucleotide and a polynuclear platinum compound, and providing the complex to the cells. The present sequence a control sense oligonucleotide which was used in an assay for BCL-2 antisense oligonucleotide activity (see AAF77808). BCL-2 is a suppresso of apoptosis and its expression in cancer cells may contribute to the resistance of cancer cells to apoptosis. The complex of the present invention is useful for treating cancer and any other disease amenable
                                                          Antisense oligonucleotide derivatives directed against human bcl-xL mRNA and capable of modulating biosynthesis of human bcl-xL proteins, useful in treatment and diagnosis of hyperproliferative diseases -
                                                                                                                                          Zangemeister-Wittke
                                                                                                                                                                    (UYZU-) UNIV ZUERICH.
                                                                                                                                                                                                                     26-APR-2000; 2000WO-EP03708
                                                                                                                                                                                                                                               09-NOV-2000
                                                                                                                                                                                                                                                                         WO200066724-A2
                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                          restenosis; fibrosis;
                                                                                                                                                                                                                                                                                                                                        Human; bcl-xL;
                                                                                                                                                                                                                                                                                                                                                                 Human
                                                                                                                                                                                                                                                                                                                                                                                          28-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                     AAC86407
                                                                                                                                                                                                                                                                                                                                                                                                                                            AAC86407 standard; RNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Delivering antisense oligodeoxynucleotide to cells for treating cancers, involves forming a complex comprising the oligodeoxynucleotide cancers a polynuclear platinum compound, and providing the complex to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Farrell NP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the treatment by antisense oligonucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (UYVI-) UNIV VIRGINIA COMMONWEALTH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11 gggaaggatggcgcacgctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 gggaaggatggcgcacgctg
                                                                                                                2001-015981/02.
                                                                                                                                                                                                                                                                                                                                                                 bcl-xL and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP; 4 A; 4 C; 10 G;
                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                             99GB-0010119
                                                                                                                                                                                                                                                                                                                                        bcl-2;
                                                                                                                                                                                                                                                                                                                                                               bcl-2 mRNA antisense control sequence CO2
                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              52pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        57.1%;
100.0%;
                                                                                                                                                                                                                                                                                                                          psoriasis;
                                                                                                                                                                                                                                                                                                                                        apoptosis;
                                                                                                                                          Luedke
                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30
                                                                                                                                                                                                                                                                                                                                                                                                                                            ΒP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 20;
Pred. No.
                                                                                                                                          ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                          SS
                                                                                                                                                                                                                                                                                                                                      antisense; cancer; allergic disease;
                                                                                                                                          Huesken
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB
44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a suppressor
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AAC65064/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 20
                                                   Query Match
Best Local
                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         are involved in apoptosis, and the antisense strands can be used to inhibit them and possibly lead to cell death. The nucleic acids of the invention can be used in the treatment of cancer, particularly colorectal, gastric, prostate, thyroid, renal, breast and lung cancers, neuroblastoma and melanoma, restenosis, fibrosis, psoriasis and certain types of allergic disease.
                                                                                                                              containing a number of degenerate bases and with a modified backbone which can be used to direct cleavage of target RNA molecules. The use of degenerate bases reduces the risk of immune activation following injection into animals, which causes deleterious side effects associated with many therapeutic antisense oligonucleotides. Sequences AAC65029-C65077 are antisense oligonucleotides and PCR primers used in assays to demonstrate the effects of the sequences of the invention.
                                                                                                                                                                                                                                                                                  Antisense oligonucleotides containing degenerate and/or universal bases, and modified backbone linkages is useful to target therapeutic genes, preferably anti-apoptosis or chemoresistance genes -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Antisense oligonucleotide; |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 20 BP; 2 A; 10 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                          WPI;
                                                                                                                                                                                                                                                                                                                                                                     Brown
                                                                                                                                                                                                                                                                                                                                                                                                                          08-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-APR-2000; 2000WO-US09293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W0200061810-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAC65064;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAC65064 standard; DNA; 21 BP
                                                                                                                                                                                                                               The present invention is concerned with antisense oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                (OASI-) OASIS BIOSCIENCES INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-FEB-2001
                                                                                                       Sequence 21 BP; 2 A; 9 C; 4 G; 4 T; 2 other;
                                                                                                                                                                                                                                                         Example 7; Fig 3; 32pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12
           12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAAGGATGGCGCACGCTGG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ggaaggatggcgcacgctgg 31
                                                                                                                                                                                                                                                                                                                                          2000-679502/66
ggaaggatggcgcacgctggg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         bcl
                                                                                                                                                                                                                                                                                                                                                                     BD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        genes antisense sequence #8.
                                                                                                                                                                                                                                                                                                                                                                     Riley TA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                           99US-0128377.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            57.1%; J
100.0%; Pr
                                                  56.0%;
90.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RNA molecule; PCR primer;
           32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 20;
Pred. No.
                                                  Score 19.6;
Pred. No. 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cleavage; immune activation;
                                                                  DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                      1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                Length
                                        Indels
                                                                  21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                        0;
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21

GGAARNATGGCGCACGCTGGG

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19

**AAGGATGGCGCACGCTGGG** 

14 aaggatggcgcacgctggg 32

Conservative

0;

Mismatches

Indels

0,

Gaps

0

Search completed: June 28, Job time: 8078 sec

2002, 22:40:02

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RESULT 15
AAZ06730/c
                                                                                                                                                 cc nerve growth factor (NGF) receptor which is expressed by melanocytes and ceration cytes of the basal epidermis. Apoptosis can be inhibited by p75NTR via the upregulation of the Bcl-2 protein. These oligomer cs equences were used to determine that if p75NTR is occupied by capropriate ligands e.g. neurotrophins, apoptosis is inhibited via Bcl-2. Other examples of appropriate ligands include the cyclic peptides AXY39233-Y39255, which are based on the beta-amyloid sequence, which occupied by the binds to p75NTR in Alzheimer's disease. The cyclic peptides can be used considered to the p75 neurotrophin receptor, inhibiting apoptosis. The new method con induce or maintain hair growth, hair colour or skin colour. Inducing cor maintaining hair growth is useful for treating alopecia areata or construction in the method of the p75 neurotrophin receptor, inhibiting alopecia areata or maintaining hair growth, hair colour or skin colour. Inducing commaintaining hair growth, hair colour or skin colour. Inducing commaintain hair growth, hair colour or skin colour.
Query Match
Best Local Similarity
"a+ches 19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                            Sequences AAZ06728-Z06729 are used to determine the role of the p75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Controlling or manipulating melanocyte and keratinocyte cell death,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            p75NTR; p75 neurotrophin receptor; nerve growth factor; NGF; melanocyte; keratinocyte; apoptosis; Bcl-2; beta-amyloid; Alzheimer's disease; pseudo-ligand; hair growth; hair colour; skin colour; alopecia areata; male pattern baldness; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Antisense oligomer used to determine role of Bcl-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAZ06730;
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                                                                                                Sequence 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 8; Page 32; 67pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eller M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-FEB-1998;
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                                                                                                                                        male pattern baldness in vertebrates.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 for treating, e.g. alopecia
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                                                                                                    BP; 2 A; 9 C; 4 G; 4 T; 0 other;
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                               Score 19;
Pred. No.
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   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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Listing first 45 summaries
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Copyright (c) 1993 - 2000 Compugen Ltd.
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/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
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/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
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/cgn2_6/ptodata/1/ina/backfiles1.seq:*
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US-08-217-082A-7
US-08-465-485A-1
US-08-465-485A-1
US-08-465-485A-1
US-08-465-485A-1
US-08-46-218-2
US-08-46-211-13
US-08-46-211-13
US-08-46-217-082A-17
US-08-46-217-082A-17
US-08-465-485A-24
US-09-28-607-285-17
US-09-080-285-17
US-09-286-098-59
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US-08-434-425-109	US-08-433-585-109	US-08-434-001-109	US-08-650-726-1	US-08-231-342-12	US-09-109-663-72	US-08-960-774-72	US-09-286-098-72	US-09-030-701-60	US-09-030-701-41	US-08-217-082A-13	US-08-217-082A-12	US-08-217-082A-11	US-08-217-082A-10	US-08-217-082A-9	US-09-082-649B-60	US-09-078-954-14	us-08-960-774-45
Sequence 109, App	Sequence 109, App	Sequence 109, App	Sequence 1, Appli		-	Sequence 72, Appl	Sequence 72, Appl	-	Sequence 41, Appl	-	Sequence 12, Appl	Sequence 11, Appl	Sequence 10, Appl	Sequence 9, Appli	Sequence 60, Appl	Sequence 14, Appl	Sequence 45, Appl

#### ALIGNMENTS

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; MOLECULE TYPE:
; ANTI-SENSE: N
US-08-217-082A-2
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Patent No. 5734033
GENERAL INFORMATION:
APPLICANT: Reed, John
                                                                                                                                                                                                                APPLICATION NUMBER: US 07/840,716
PRILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/288,692
FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
NAME: FOTTNEY, Andrew D.
REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 3335-067-55
TELECOMMUNICATION INFORMATION:
                                                                                                                                                            TELEFAX: (408) 436-2075 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 95110
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 35 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIA Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: 223.
STREET: San Jose
CITY: San Jose
CTATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES TITLE OF INVENTION: GROWTH OF CELLS EXPRESSING NUMBER OF SEQUENCES: 17
                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: FILING DATE: 24-MAF CLASSIFICATION: 435
                                                              TOPOLOGY:
                                                                             STRANDEDNESS:
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ADDRESSEE: P.C.
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                                       DNA (genomic)
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US-08-465-485A-2
                 US-09-080-285-2
                                RESULT
                                                                                                                                                                                                                                US-08-465-485A-2
                                                                                                                                                                                                                                                                                                         TELEPHONE: (408) 436-2070
TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 35 base pairs
TYPE: nucleic acid
Sequence 2, Application US/09080285
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Best Local Similarity
                                                                                                                                                Matches
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                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                               MOLECULE TYPE:
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APPLICATION NUMBER: US 08/124,256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: FILING DATE: 05-JUJ
CLASSIFICATION: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 0' FILING DATE: 21-FEB-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Fortney, Andrew D. REGISTRATION NUMBER: 34,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 07/288,692 FILING DATE: 22-DEC-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: 1755 S. CITY: Arlington
                                                                                                                                                              Local
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Y: U.S.A.
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1755 S. Jefferson Davis Hwy., Suite 400
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100.0%; ; i
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O; Mismatches
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Pred. No. 1.9e-06;
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                                                                                                                                              1.9e-06;
hes 0;
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                                                                                                                                       Sequence 1, Application US/08217082A Patent No. 5734033
                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 35; Conserv
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                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: (408) 436-207
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                               NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                 APPLICANT: Reed, John
TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES
TITLE OF INVENTION: GROWTH OF CELLS EXPRESSING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 21-FEB-1992 PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: Regulation of bcl-2 Gene Expression NUMBER OF SEQUENCES: 29
                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 0
FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
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                  ADDRESSEE:
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P.C.
                OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT
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NO: 2:
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3ER: 3335-070-55 CONT
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Pred. No. 1.9e-06;
Pred. No. 1.9e-06;
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                                                                     HUMAN BCL-2 GENE
                                                                                     INHIBITING THE
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COUNTRY:

U.S.A.

95110

STATE: California

San Jose

224 Airport Parkway

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US-08-217-082A-1
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                STREET: 24,
STREET: San Jose
CITY: San Jose
CTATE: California
     SOFTWARE: Patentin Keig
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US,
                                                                                                 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                        APPLICANT: Reed, JOHN
TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES FOR INHIBITING THE
TITLE OF INVENTION: GROWTH OF CELLS EXPRESSING THE HUMAN BCL-2 GENE
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APPLICATION NUMBER: US 0
FILING DATE: 22-DEC-1988
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PRIOR APPLICATION DATA:
APPLICATION UMBER: US 07/840,716
FILING DATE: 21-FEB-1992
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MEDIUM TYPE: Floppy disk
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CORRESPONDENCE ADDRESS:
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TELECOMMUNICATION INFORMATION:
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                                                             MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                        COUNTRY: U.S.A. ZIP: 95110
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                                                PatentIn Release #1.0, Version #1.25
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              US/08/217,082A
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Best Local Similarity
Matches 20; Conservat
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INFORMATION FOR SEQ ID NO: 7
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PRIOR APPLICATION NUMBER: US 07
APPLICATION NUMBER: US 07
FILING DATE: 21-FEB-1992
                                                                                                                                                                   CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/124,256
FILING DATE: 20-SEP-1993
                                ATTORNEY/AGENT INFORMATION:
NAME: Forthey, Andrew D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: RENUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
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LENGTH: 20 base pairs
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
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                                                                  FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07
FILING DATE: 22-DEC-1988
                                                                                                                                    PRIOR APPLICATION DATA: 07/840,716
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OPERATING SYSTEM: PC-DOS/MS-DOS
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ZIP: 22202
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                NAME: Fortney, Andrew D. REGISTRATION NUMBER: 34,600
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                                                                                                                                                                                                                                                           APPLICATION NUMBER:
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REFERENCE/DOCKET NUMBER:
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1755 S. Jefferson Davis Hwy.,
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100.0%; Pred. No.
tive 0; Mismatc
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3335-070-55 CONT
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; MOLECULE TYPE:
; ANTI-SENSE: NO
US-08-465-485A-7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
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INFORMATION FOR SEQ ID NO:
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LENGTH: 20 base pairs
TYPE: nucleic acid
                                                                                                       SEQUENCE CHARACTERISTICS:
                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                          FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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                                       STRANDEDNESS: SI
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OPERATING SYSTEM:
                                                                                      LENGTH:
                                                                                                                                                   TELEPHONE:
                                                                                                                                                                                REGISTRATION NUMBER: 34, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 0' FILING DATE: 21-FEB-1992
                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 01 FILING DATE: 20-SEP-1993
                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/465,485A FILING DATE: 05-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Arlington
STATE: Virginia
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5. 5831066
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                                                                         1: 20 base pairs
nucleic acid
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SYSTEM: PC-DOS/MS-DOS
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100.0%; Pred. No.
tive 0; Mismatc
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3.9;
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US-09-080-285-1
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              Query Match
Best Local Similarity
 Matches
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Best Local Similarity
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                                                                                       TOPOLOGY: line
MOLECULE TYPE: DI
ANTI-SENSE: YES
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                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 20-SEP-PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 0:
FILING DATE: 05-JUN-1995
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                          NAME: Fortney, Andrew D. REGISTRATION NUMBER: 34, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 0 FILING DATE: 21-FEB-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
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Y: U.S.A.
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1755 S. Jefferson Davis Hwy., Suite 400
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                                                                                                        DNA (genomic)
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20-SEP-1993
                                                                                                                                     single
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              57.1%; Score 20; 100.0%; Pred. No.
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100.0%; Pred. No.
tive 0; Mismatc
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 Mismatches
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              DB 3;
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3.9;
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                              Length 20;
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Gaps
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GGGAAGGATGGCGCACGCTG

11 gggaaggatggcgcacgctg 30

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                                                                                     RESULT 10
US-09-379-718-1/c
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US-09-080-285-7
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                                                   Sequence 1, Application US/09379718 Patent No. 6310047
                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                     Matches
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APPLICANT: Farrell, Nicholas APPLICANT: Kloster, Miriam
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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REFERENCE/DOCKET NUMBER: 3335-070-55 CONT
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
NAME: Fortney, Andrew D.
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APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 08/465,485
FILING DATE: 05-JUN-1995
PRIOR APPLICATION DATA:
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                                                                                                                                                                                  11 gggaaggatggcgcacgctg 30
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; OTHER INFORMATION: Description of Artificial Sequence: synthetic; OTHER INFORMATION: oligonucleotides for gene therapy US-09-379-718-1
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; Sequence 2, Application US/09379718
; Patent No. 6310047
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US-08-410-804-13
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; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: oligonucleotides for gene therapy
US-09-379-718-2
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Best Local Similarity
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CURRENT FILING DATE: 1999-08-24
                                                                                         GENERAL INFORMATION:
APPLICANT: Reed, John C.
APPLICANT: Sato, Takaaki
TITLE OF INVENTION: FAS ASSOCIATED PROTEINS
NUMBER OF SEQUENCES: 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/379,718
CURRENT FILING DATE: 1999-08-24
NUMBER OF SEQ ID NOS: 5
SOFTWARE: Patentin Ver. 2.1
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TYPE: DNA
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TYPE: DNA
ORGANISM: Artificial Sequence
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STATE:
                                   ADDRESSEE: Cathryn Campbell STREET: 4370 La Jolla Village Drive. Ste 700
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 California
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100.0%; Pr
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Pred. No.
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US-08-607-269-8
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  FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/226,876
FILING DATE: 13-APR-1994
ATTORNEY/AGENT INFORMATION:
NAME: Campbell, Cathryn A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 8, Approximately No. 5702897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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Best Local
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INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                           SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: Campbell and Flores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READAL MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Reed, John C. APPLICANT: Sato, Takaaki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: Interaction of Proteins Involved in a TITLE OF INVENTION: Cell Death Pathway
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 14-JUN-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 27 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
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FILING DATE: 27-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 08/259,514 FILING DATE: 14-JUN-1994
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TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/08607269
                                                                                                                                                                                                                                                                                                                                                                                                        California
                                                                                                                                                                                                                                                                                                                                                                                                                                                  4370 La Jolla Village Drive, Suite
                                                                                                                                                                                                                                                                                                                                                                                USA
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P-LJ 9882
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Pred. No. 1
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                                                                   Query Match
Best Local :
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                                                      Matches
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Best Local :
                                                                                                                                                                                                     TELEFAX: (619) 535-894
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: (619) 535-8949 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Reed, John C. APPLICANT: Sato, Takaaki TITLE OF INVENTION: FAS
                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION: TELEPHONE: (619) 535-9001
                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                      11 gggaaggatggcgcacgctgggaga 35
                                                                                                                                                 STRANDEDNESS:
TOPOLOGY: lir
                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 31, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                               FILING DATE: 1. CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: San Diego
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                                                                                                                                                                                                                                                                                                       NAME:
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1 GGAATTCATGGCGCACGCTGGGAGA 25
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                                                                   Similarity
                                                                                                                                                                           1: 27 base pairs
nucleic acid
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                                                                                                                                                              single
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RESULT

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US-08-858-311-13
Sequence 13, Application US/08858311
Patent No. 5876393
GENERAL INFORMATION:
APPLICAN: Reed, John C.
APPLICAN: SatO, Takaaki
TITLE OF INVENTION: FAS ASSOCIATED PROTEINS
NUMBER OF SEQUENCES: 2
CORESPONDENCE ADDRESS:
CORPUTER READABLE FORM:
COMPUTER READABLE FORM:
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Post-processing: Minimum Match 0%
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Perfect score:
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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                                       June 28, 2002, 22:10:45; Search time 3762.88 Seconds (without alignments) 111.226 Million cell updates/sec
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### ALIGNMENTS

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VERSION
AR052605
SOURCE
ORGANISM
Unknown.
Unclassified.
1 (bases 1 to 20)
AUTHORS
AUTHORS
FEATURES
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SOURCE
1 (bases 1 to 20)
Location/Qualifiers
Source
1 (bases 1 to 20)
Location/Qualifiers
Source
1 (bases 1 to 20)
AUTHORS
Red, J.C.
Location/Qualifiers
Source
1 (bases 1 to 20)
AUTHORS
AUTHORS
Source
1 (bases 1 to 20)
AUTHORS
AUTHORS
Regulation of bc1-2 gene expression
Patent: US 5831066-A 3 03-NOV-1998;
Location/Qualifiers
1 . . . 20
AUTHORS
Source
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Result No.

Query Score Match Length DB

IJ

Description

Query Match Best Local Similarity

100.0%;

Score 20; Pred. No.

; DB 6; . 7.8;

Length 20;

SUMMARIES

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Sequence 4 from patent US 5831066.
AR052606
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        Sequence 4 from patent US 196085
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                                                                                                                                                                                             Regulation of bcl-2 gene expression Patent: US 5831066-A 4 03-NOV-1998;
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Location/Qualifiers
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5 c 16 g
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10 c 3 g
GI:3940555
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AX116165/c
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Matches 20
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Matches 16; Conserv
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X96916
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Patent: WO 0129262-A 1288 26-APR-2001;
Orchid BioSciences, Inc. (US)
Location/Qualifiers
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Villa,A.

The exon-intron structure of human richard Res. Commun. 229
                                Eukaryota; Metazoa; Chordata;
Mammalla; Eutheria; Primates;
1 (bases 1 to 46)
Bozzi, F., Bertuzzi, S., Strina
                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 51)
Picoult-Newburg, L. and Pohl, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
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Unclassified
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                                                                                                     Hlx-1 gene; LIM 1 protein.
                                                                                                                  X96916.1 GI:1770446
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5 c 16 g
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/db_xref="taxon:9606"
11 c 24 g
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Pred. No. 2.1e+04;
0; Mismatches 4
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                                  Strina, D., Giannetto, C.,
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                                                         Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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Sequence 13 from patent US 6074872.
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AP068300 .
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/db_xref="taxon:9606"
/db_xref="11"
/chromosome="11"
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/note="donor second intron"
/notoduct="LIM 1 protein" 9 t
/product="12 c
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                                                                                          MUSTKBRE 11ndividual isolate primary plasmacytoma.4122) DNA linear ROD 12-AUG-1994 wis musculus (individual isolate primary plasmacytoma.4122) DNA translocation breakpoint.
L35085.1 GI:529452
L35085.1 GI:529452
translocation breakpoint.
translocation breakpoint.
Mus musculus (individual_isolate primary plasmacytoma 4122, strain
Mus musculus (individual_isolate primary plasmacytoma; strain
Mus musculus
Mus musculus
Mus musculus Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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pred. NO. 2.7e+04;
pred. NO. 2.7e+04;
0; Mismatches 1;
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83.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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ORIGIN
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/isolate "primary plasmacytoma 4122"
/db_ref="taxon:10090"
/db_rchromosome 12+"
/map="chromosome 12+"
20. .21
                                                                                                                                                                                                                                                                                                Local
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Patent: WO 0138586 A 860 31-MAY-2001;
Curagen Corporation (US)
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activating mus musculus"
/organism="Mus 6 9
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15; Conserva
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AR068325 10 from patent US 5853977.
Sequence 10 from patent US 5853977.
AR068325 1 GI:6000532
AR068325.1 GI:6000532
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                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                    "Note="single nucleotide polymorphism" (note="single nucleotide polymorphism coession number cg43981852"  
Accession number 13 g  
Accession 13 g  
Accession number cg43981852"
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pred. No. 3.5e+04;
pred. No. 3; i
                                                                                                                                                                                                                                                                                                                            score 13.2; DB 6; Length 51; pred. NO. 3.4e+04;
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PAT 29-SEP-1999

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RESULT 1
AX092953
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                                                                                                        1 9atgcacctacccagcctcc 20
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as 13; Conserv
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E07533/c
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MORITA, T. and Matsushiro, A.

MURINE GENE PARTICIPATING IN HOMOLOGOUS RECOMBINING REACTION

MORITA TAKASHI, MATSUSHIRO AIZO

C. Mana ASHI, MATSUSHIRO AIZO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7 cctacccagcctc 19
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hes 13; Conservative
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UP 1994141863-A/2.
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                                                                                                                                                                                                                                                                                                                                                                      unidentified
                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                              Oligonucleotide primer all bp DNA linear PAT 29-SEP-1997
the budding enzyme.

807537 Linear PAT 29-SEP-1997
                                                                                                                                                                /organism="unidentified"
/db_xref="taxon:32644"
5 c 7 9 5
                                                                                                                                                                                                                                                   10. NOV-1992 JP 1992299714
MORITA TAKASHI, MATSUSHIRO AIZO
12.012.012.012.01/C1201/68,
                                                                                                                                                                                                                                               Opology: Linear;
                                                                                                    65.0%; Score 13; DB 6; Length 30; Pred. No. 4.6e+04; Indels
                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unknown.
Unknown
Unclassified.
1 (bases I to 22)
Dalie, B., Fan, X., Lundell, D., Lunn, C.A., Tan, J.C. and Zavodny, p.J.
Patent: US 5853977-A 10 29 - DEC - 1998;
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12 c 3 g
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100.0%; Pred. NO. 4.7e+04,
0; Mismatches 0
                                             DNA
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                          linear PAT 30-MAR-2001
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SOURCE Unknown.
ORGANISM Unknown.
                                       ACCESSION
                         KEYWORDS
                                     VERSION
                                                              AR088563/c
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AX167323
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                                                                                 4 ATGCATCAACCCAGCC 19
                                                                                          2 atgcacctacccagcc 17
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               AR088563.1 GI:10015327
                        AR088563
Sequence 12 from Patent US 59898999.
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Best Local Similarity 64.0%;
Matches 14; Conservative
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                                                                                                                                                                                                                                                                                                                                                           2 atgcacctacccagcc 17
                                                                                                                                                                                     Patent: WO 0144460-A 12 21-JUN-2001;
Xenogen Corporation (US)
Location/Qualifiers
                                                                                                                                                                                                                                             synthetic construct.
synthetic construct.
artificial sequence.
[ (bases 1 to 31)
                                                                                                                                                                                                                                                                                                                                                   4 ATGCATCAACCCAGCC 19
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Methods and compositions for screening for anglogenesis modulating
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Sequence 12 from Patent W00144460.
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a
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/ob_xref="taxon:32630"
/note="primer VNIF"
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synthetic construct
artificial sequence
[ (bases 1 to 31)
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Location/Qualifiers
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                                                                                                                   64.08;
87.58;
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/db_xxef="taxon:32630"
/note="primer VNIF"
10 c 9 g 3 t
                                                                                        Score 12.8, DB 6, Length 31, 0; Mismatches 2, Indels
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Pred. No. 5.9e+04;
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                      linear
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          PAT 07-SEP-2000
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AR088564
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Search completed: June 28, 2002, 22:10:50 Job time: 8341 sec
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Best Local Similarity
Matches 14; Conserv
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Best Local Similarity 87.5%;
Matches 14; Conservative
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4 GGACCTACCCAGTCTC 19
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Bower, B.S., Clarkson, K.A., Larenas, E.A. and Ward, M.
Oversized cellulase compositions for use in detergent compositions and in the treatment of textiles
Patent: US 5989899-A 12 23-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unclassified.

1 (bases 1 to 39)

1 (bases 1 to 39)
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Sequence 13 from patent US 5989899.
AR088564 GI:10015328
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                                                                                                                                                                                                                                                                                                                     64.0%;
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Pred. No. 5.8e+04;
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Perfect score:
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                          Score
  14.2
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              Human bcl-2 antise
Bcl-2 splice donor
Human bcl-2 oligon
Oligonucleotide PC
Human map-related
Human map-related
Human SNP flanking
Preprocortistatin
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Human map-related Primary forward P	AAZ 9516	21	47 20	62.0	12.4	44	
Probe for HIV-1 vi	AAN92	10	30	62.0	12.4	43	
fo	AAX33844	۵ 2	37 27	•	12.4	4.1 2.1	
	ABI	24	24		12.4	40	a
Capture oligonucle	ABI8962	24	24		12.4	39	
Hybridised tagged	AAS1608	24	2		12.4	38	a
oligonucl		24	2	•	12.4	37	
Human c-fos target	AAV9526	19	L		12.4	36	
		13	75		12.6	35	
Primer 312-59. Sy		13	7	63.0	•	34	o
Human SNP flanking	AAH38988	22	ر ت	63.0	•	ယ	C
Human SNP oligonuc	AAL	22	ហ	63.0	•	32	O
Human silent SNP c		22	49	63.0	•	31	
Exo-cellobiohydrol	AAQS	16	72	64.0	•	30	
Human clone cg4402		22	51	64.0	•	29	O
oligonu		22	50	64.0	•	28	O
PCR primer for end		19	39	64.0	•	27	
PCR primer for end	AAV44776	19	39	64.0	•	26	o
9		24	31	٠	12.8	25	
Mouse 3'end vitron		22	31	64.0	•	24	
PCR primer for mur		22	31	•	•	23	
		21	22	٠	•	22	a
Nucleotide sequenc		19	22	64.0	12.8	21	c
Interleukin 10 sho		21		•	•	20	a
Rad51 primer. Syn		15			13	19	a
Human TNF-alpha co	AAV73937	20	22		13	18	
Human MT-MMP2 PCR	AAV20581	19	22		13	17	
Human amino acid c	ABL00869	23				16	
Human SNP oligonuc		22	51		13.2	15	
	AAL32607	22	51	•	•	14	C
Human SNP oligonuc	AAL3	22		66.0	•	13	C
Human SNP oligonuc	AAL31174	22	51		13.2	12	
SNP	AAL271	22	51	66.0	13.2	11	ဂ
Human growth hormo	AA16812	22	41	66.0	13.2	10	C

### ALIGNMENTS

DR XX	PA XX	PR	PR	PR	Ήď	XX	×	PN	XX	SO	SO	XX	KW	ΚW	×	DE	×	Ŋ	×	AC	×	Ħ	AAV1	RESULT
Reed J; WPT; 1998-229881/20.	(UYPE-) UNIV PENNSYLVANIA.		22-DEC-1988; 88US-0288692.		24-MAR-1994; 94US-0288692.	בד אמות בססט.	21-W25-1000	US5734033-A.		Homo sapiens.	Synthetic.		cancer; ss.	Antisense oligonucleotide; bcl-2 gene; lymphoma; leukaemia; human;		Human bcl-2 antisense oligonucleotide 2.		12-JUN-1998 (first entry)		AAV19653;		AAV19653 standard; DNA; 20 BP.	AAV19653	LT 1

AA168122

growth hormo

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RESULT 2
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Matches 20
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                                                                                                                                      Anti-code oligomers which bind to bcl-2 mRNA - of human solid tumours, esp. breast cancer
Sequence
                                     thereby inducing programmed corresp. bcl-2 sense splice
                                                           The antisense oligonucleotide SD-AS (AAQ86645) is complementary to portion of the splice donor site of the pre-mRNA coding strand of thuman bcl-2 gene. It reduces the expression of bcl-2 gene product,
                                                                                                            Disclosure; Page 13; 108pp; English.
                                                                                                                                                                            WPI;
                                                                                                                                                                                                     Reed
                                                                                                                                                                                                                                                     20-SEP-1993;
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                                                                                                                                                                                                                           (REED/) REED
                                                                                                                                                                                                                                                                                                                                                                                        eukemia;
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                                                                                                                                                                                                                                                                                                                                                                                        antisense oligonucleotide; bcl-2; cancer; therap;
solid tumor; breast cancer; autoimmune disease;
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22-DEC-1988;
24-MAR-1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This is a human bcl-2 oligonucleotide based on which an antisense oligonucleotide complementary to the splice donor site of the human bcl-2 mRNA can be constructed. Bcl-2 antisense oligonucleotides straddle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               strategic sites such as the translation initiation site, donor and acceptor splicing sites, or sites for transportation or degradation.
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention describes a special DNA sequence which can to synthesise three pairs of high-specificity primers useful for discriminating if black snake, tortoise plastron and forest frog true or false by simple polymerase chain reaction (PCR) of their AA257419 to AA257424 represent specifically claimed primers from present invention. The primers can be used to make a reagent box discriminating medicinal materials with high speed and quality.
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                                                                                                                                                                                                                                        diagnosis;
                                                                                                                                                                                                                                                           Human genome; biallelic marker; high density disequilibrium map; genomic map; haplotype; phenotype; polymorphic base; genotyping; haplotyping; hybridisation; identification; characterisation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1; Page 1; 4pp; Chinese.
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Pred. No. 1
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Best Local S
Matches 16
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                                                                                                                                  Homo
                                                                                                                                                                     Human genome; biallelic marker; high density disequilibrium map; genomic map; haplotype; phenotype; polymorphic base; genotyping; haplotyping; hybridisation; identification; characterisation;
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            28-OCT-1999
                                                                                          variation
                                                                                                        Key
                                                                                                                                                           diagnosis;
                                                                                                                                                                                                                             Human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        pharmaceutical agents and diagnostic methods, as well as the characterisation of the differential efficacious responses to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 for disease states. Compositions and methods of the invention can also
be useful for the identification of the targets for the development of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 3; Page 837; 2745pp; English.
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                                                                                                                                                                                                                           map-related biallelic marker SEQ ID NO:3160
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         from pharmaceutical agents acting on a disease as well as
                                                                                                                                                                                                                                                                                                         standard; DNA; 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Blumenfeld
                                                                                                                                                           single nucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BP; 16 A; 13 C; 10
                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-0082614.
98US-0109732.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-IB00822
                                                                            replace(24,G)
/*tag= a
                                                               /standard_name= "single nucleotide polymorphism"
                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                           71.0%;
84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chumakov
                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                          polymorphism;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 14.2;
Pred. No. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          to construct a high density disequilibrium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G;
8
                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2974, 3035,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2974, 3035, 3096, 3157, a sequence in the Seque
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                            .6e+03
                                                                                                                                                                                                                                                                                                                                                                                                                                                        DΒ
                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence Listing
                                                                                                                                                                                                                                                                                                                                                                                                                                                        47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        to and side
                                                                                                                                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
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RESULT 7
AAH38492/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                        Single nucleotide polymorphism; SNP; single nucleotide primer extension; SNPE; genotyping; agammaglobulinaemia; diabetes insipidus; cancer; Lesch-Nyhan syndrome; muscular dystrophy; familial hypercholesterolaemia; polycystic kidney disease; osteogenesis imperfecta; autoimmune disease; acute intermittent porphyria; rheumatoid arthritis; multiple sclerosis; inflammation; forensic investigation; paternity analysis; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAZ65654 to AAZ69578 represent human biallelic markers from the present invention, which contain a polymorphic base at position 24 of their nucleotide sequences. AAZ69579 to AAZ77440 represent amplification primers for the biallelic markers. The biallelic markers of the invention have a variety of uses: they can be used for high density mapping of the human genome, and in complex association studies and haplotyping studies which are useful in determining the genetic basis for disease states. Compositions and methods of the invention can also be useful for the identification of the targets for the development of
(ORCH-) ORCHID BIOSCIENCES INC
                          15-OCT-1999;
                                                 13-OCT-2000;
                                                                                                      WO200129262-A2
                                                                                                                                Homo
                                                                                                                                                                                                                                                 Human SNP flanking oligonucleotide SEQ ID 1288
                                                                                                                                                                                                                                                                               14-AUG-2001
                                                                                                                                                                                                                                                                                                                                 AAH38492 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                map of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cohen D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-APR-1998;
23-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pharmaceutical agents and diagnostic methods, as well as the characterisation of the differential efficacious responses to and side
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GEST ) GENSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              effects from pharmaceutical agents
                                                                                                                                                                                                                                                                                                                                                                                                  46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                           4
                                                                                                                                                                                                                                                                                                                                                                                                                gcacctacccagcctcc 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The SEQ ID NOS 2852, 2913, 3367, are not actually given
                                                                                                                               sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the human genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             , are not actually present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Page 904; 2745pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Blumenfeld M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BP; 11 A; 11 C;
                                                  2000WO-US28436
                                                                                                                                                                                                                                                                              (first entry)
                          99US-0160096
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98US-0109732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-IB00822.
                                                                                                                                                                                                                                                                                                                                 DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                69.0%;
88.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 13.8;
Pred. No. 2.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Τ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3035,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0 other;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a disease
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3157,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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ID XXX ACC XXX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
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                                                                                                                                                                                                                                                                                                                                                                                Rat; mouse; human; preprocortistatin; N-terminal signal peptide; procortistatin; cortistatin-29; cortistatin-14; agonist; antibody; inhibition; sleep; somatostatin; neuronal electrical activity; cerebral cortex; antagonist; acetylcholine; primer; PCR; immunoass;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         inflammation, cancer, nervous system diseases and infection by pathogenic microorganism. The method is also useful in forensic investigations and paternity analysis. The present sequence represents a fragment of human
                                                                                                                                                                                                                      WO9743417-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAV09157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 51 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       osteogenesis imperfecta and acute intermittent porphyria. Phenotypic traits also include symptoms of or susceptibility to multifactorial disease of which a component is or may be genetic such as autoimmune diseases, including, rheumatoid arthritis, multiple sclerosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   agammaglobulinaemia, diabetes insipidus, Lesch-Nyhan syndrome, muscul
dystrophy, familial hypercholesterolaemia, polycystic kidney disease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  identity of a SNP and for genotyping nucleic acid samples, for e.g. to assess by association analysis the genotype of an individual or group (individuals, having a pathological phenotypic trait suspected of being caused by one or more SNPs. Phenotypic traits include diseases e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SNP flanking sequence, the SNPE primer is used as a genotyping primer. The oligonucleotides are useful for genotyping a nucleic acid sample by performing a single-nucleotide primer extension reaction. The oligonucleotides are useful for determining the presence, absence or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Page 56; 83pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New genotyping oligonucleotide, useful for detecting the presence, absence or identity of single polynucleotide polymorphism in a nuc
                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                  hybridisation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Preprocortistatin 5' PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-MAY-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Picoult-Newburg L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
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16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               standard; cDNA; 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      identity of single polynucleotide polymorphism in a nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                  amplification; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9 A; 11 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pohl
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                                                                                                                                                                                                                                                                                                                                                                                   immunoassay;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SNP, using the
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15-MAY-1996;

96US-0648322 97WO-US08481 20-NOV-1997

15-MAY-1997;

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RESULT
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                inhibit sleep. Although cortistatin is structurally similar to somatostatin, it is able to depress neuronal electrical activity, induce low frequency waves in the cerebral cortex, antagonise acetylcholine and therefor enhance slow-wave sleep. The antibodies, and oligonucleotide primers, are used in usual immunoassays and hybridisation/amplification assays to detect or quantify cortistatin (including that administered therapeutically) or its nucleic acid. Oligonucleotides, e.g. antisense molecules, are used in vivo to alter cortistatin gene expression. Detection of a mutation in the cortistatin gene may provide diagnosis of the cortistatin gene may provide diagnosis of the cortistating and prov
                                                                                                                                                           07-MAR-2000; 2000CN-0111926
                                                                                                                                                                                                                                                                                                                                                                                                                 immunomodulatory; antiinflammatory; haemostatic; malignant tumour;
human immunodeficiency virus; infection; immunological disease;
embryonic developmental disorder; growth disturbance;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cortistatin proteins referred as rat cortistatin-29, and cortistatin-14. The purified cortistatin, and its agonists, are used to induce sleep while its receptor antagonists (particularly antibodies) is used to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This is a 5' PCR primer used in the amplification of the novel preprocortistatin protein. Cleavage of the protein leads to t formation of procortistatin, which is processed to produce the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New cortistatin mutation(s) and
                     WPI; 2001-611485/70
                                                                 мао у,
                                                                                                                                                                                                          26-FEB-2001; 2001WO-CN00214
                                                                                                                                                                                                                                                                                                    WO200170809-A1
                                                                                                                                                                                                                                                                                                                                                                                                developmental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAI68122 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sleep-related or neuronal depression-related disorders or diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     De Lecea
                                                                                                             (BIOW-)
                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; growth hormone family protein 9; cytostatic; virucidal; HIV;
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        The invention relates to human growth hormone family protein 9 with cytostatic, virucidal, immunomodulatory, antlinflammatory and haemos activity. The polypeptide and encoded polynucleotide are applicable diagnosis and treatment of malignant tumour, haemopathy, human immunodeficiency virus infection, immunological diseases and various immunodeficiency virus infection, immunological diseases and various
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         immunodeficiency virus infection, immunological diseases and various inflammations, embryonic developmental disorders, growth disturbance, developmental disturbance and pregnancy abnormality. The present sequence is that of a probe, useful to the invention.
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                                                                                                                                                 diseases and inflammation
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human immunodeficiency virus; infection; immunological disease;
embryonic developmental disorder; growth disturbance;
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diagnosis and treatment of malignant tumour, haemopathy, human
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                                                                                                                 Example
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                                                                                                               6; Page 15; 34pp; Chinese
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                       The present invention relates to oligonucleotides encoding polymorphic CC variants of proteins related to amylases, amyloid proteins, angiopoietin, CC apoptosis related proteins, cadherin, cyclin, polymerase, oncogenes, CC histones, kinases, colony stimulating factors, complement related CC proteins, cytochromes, kinesins, cytokines, interferons, interleukins, CC G-protein coupled receptors and thioesterases. The present sequence is CC one such oligonucleotide. The oligonucleotides and the peptides encoded by them may be used in the prevention, diagnosis and treatment of CC diseases associated with inappropriate expression of the proteins listed CC dive. Disorders that may be prevented, diagnosed and/or treated include CC multifactorial diseases with a genetic component, such as autoimmune CC diseases (e.g. rheumatoid arthritis, multiple sclerosis, diabetes, csystemic lupus erythromatosus and Grave's disease), inflammation, cancer CC (e.g. cancers of the bladder, brain, breast, colon and kidney, cancer of the bladder, brain, breast, colon and kidney)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Polymorphic nucleic acids encoding e.g. amylases, cyclins, polymerases, oncogenes and histones, useful for diagnosing and treating, e.g. cancer, autoimmune diseases and infections -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JUL-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 13.2; DB 22; Pred. No. 4.6e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              დ;
6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              T; 0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence
                   of pathogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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RESULT 12
AAL31174
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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                                                                                                                                                                                                                        The present invention relates to oligonucleotides encoding polymorphic variants of proteins related to amylases, amyloid proteins, angiopoietin, apoptosis related proteins, cadherin, cyclin, polymerase, oncogenes, histones, kinases, colony stimulating factors, complement related proteins, cytochromes, kinesins, cytokines, interferons, interleukins, orprotein coupled receptors and thioesterases. The present sequence is one such oligonucleotide. The oligonucleotides and the peptides encoded by them may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate expression of the proteins listed above. Disorders that may be prevented, diagnosed and/or treated include
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Immunosuppressive; immunostimulatory; antiinflammatory; cytostatic; neuroprotective; antimicrobial; gene therapy; vaccine; amylase; cancer amyloid protein; angiopoietin; apoptosis related protein; cadherin; cyclin; polymerase; oncogene; histone; kinase; colony stimulating facto complement related protein; cytochrome; kinesin; cytokine; interferon; interleukin; G-protein coupled receptor; thioesterase; inflammation; multifactorial disease; autoimmune disease; infection; nervous system disease; ss.
                                                                                       diseases (e.g. rheumatoid arthrills, multiple section inflammation, cancer systemic lupus erythromatosus and Grave's disease), inflammation, cancer systemic lupus erythromatosus and Grave's disease), inflammation, cancer systemic lupus erythromatosus and Grave's disease, inflammation, cancer systemic lupus erythromatosus and systemic lupus erythromatosus erythroma
                                                                                                                                                                  multifactorial diseases with a genetic component, such as autoimmune diseases (e.g. rheumatoid arthritis, multiple sclerosis, diabetes,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Polymorphic nucleic acids encoding e.g. amylases, cyclins, polymerases, oncogenes and histones, useful for diagnosing and treating, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cancer, autoimmune diseases and infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-465210/50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-JUL-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27-DEC-2000; 2000US-0173419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-DEC-2000; 2000WO-US35498
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-JAN-2002
                                                                                 leukaemia),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CURA-) CURAGEN CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
nes 15; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24 ATGCCCATGCCCAGCCTC
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                                                                                 cancers of the bladder, emia), diseases of the no
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Page 2645; 4143pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    вP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Leach M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0173419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 66.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                51
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19
                                                                                    nervous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 13.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11
                                                                                 system and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ŧ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 22;
                                                                                 colon and kidney,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
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                                                                                    pathogenic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          complement related protein; cytochrome; kinesin; cytokine; interferon; interleukin; G-protein coupled receptor; thioesterase; inflammation; multifactorial disease; autoimmune disease; infection;
                                                                                                                           apoptosis related proteins, cadherin, cyclin, polymerase, oncogenes, histones, kinases, colony stimulating factors, complement related proteins, cytochromes, kinesins, cytokines, interferons, interleukins, G-protein coupled receptors and thioesterases. The present sequence is one such oligonucleotide. The oligonucleotides and the peptides encoded by them may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate expression of the proteins listed above. Disorders that may be prevented, diagnosed and/or treated include multifactorial diseases with a genetic component, such as autoimmune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAL32505;
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                                                  systemic lupus erythromatosus and Grave's disease), inflammation, cancer (e.g. cancers of the bladder, brain, breast, colon and kidney, leukaemia), diseases of the nervous system and an infection of pathogeni
                                                                                                                                                                                                                                                                                             The present invention relates to oligonucleotides encoding polymorphic variants of proteins related to amylases, amyloid proteins, angiopoietin,
                                                                                                                                                                                                                                                                                                                                                        Claim
                                                                                                                                                                                                                                                                                                                                                                                             cancer, autoimmune diseases and infections
                                                                                                                                                                                                                                                                                                                                                                                                 Polymorphic nucleic acids encoding e.g. amylases, cyclins, polymerases, oncogenes and histones, useful for diagnosing and treating, e.g. cancer, autoimmune diseases and infections -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shimkets RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-DEC-1999; 99US-0173419
27-DEC-2000; 2000US-0173419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-DEC-2000; 2000WO-US35498
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nervous system disease; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Immunosuppressive; immunostimulatory: antiinflammatory; cytostatic; neuroprofective; antimicrobial; gene therapy; vaccine; amylase; cancer; amylabilatin; apoptosis related protein; cadherin; amyloid protein; angiopolatin; polymerase; oncogene; histone; kinase; colony stimulating factor; cyclin; polymerase; oncogene; histone; kinase; colony stimulating factor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-JAN-2002
                                                                                                           diseases (e.g. rheumatoid arthritis, multiple sclerosis, diabetes,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (CURA-) CURAGEN CORP.
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                                                                                                                                                                                                                                                                                                                                                      1; Page 3032; 4143pp; English
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15; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard; DNA;
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Pred. No. 4.7e+03;
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Best Local :
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                                             proteins, cytochromes, kinesins, cytokines, interferons, interleukins, of protein coupled receptors and thioesterases. The present sequence is one such oligonucleotide. The oligonucleotides and the peptides encoded by them may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate expression of the proteins listed above. Disorders that may be prevented, diagnosed and/or treated include multifactorial diseases with a genetic component, such as autoimmune diseases (e.g. rheumatoid arthritis, multiple sclerosis, diabetes, systemic lupus erythromatosus and Grave's disease), inflammation, cancer (e.g. cancers of the bladder, brain, breast, colon and kidney, leukaemia), diseases of the nervous system and an infection of pathogenic
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                                                                                                                                                                                                                      variants of proteins related to amylases, amyloid proteins, anglopol, apoptosis related proteins, cadherin, cyclin, polymerase, oncogenes, histones, kinases, colony stimulating factors, complement related proteins, cytochromes, kinesins, cytokines, interferons, interleukin.
                                                                                                                                                                                                                                                                       The present invention relates to oligonucleotides variants of proteins related to amylases, amyloid
                                                                                                                                                                                                                                                                                                                           Claim 1; Page 3059; 4143pp; English.
                                                                                                                                                                                                                                                                                                                                                             cancer, autoimmune diseases and infections
                                                                                                                                                                                                                                                                                                                                                                            Polymorphic nucleic acids encoding e.g. amylases, oncogenes and histones, useful for diagnosing and
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27-DEC-2000;
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proteins, angiopoietin,
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                                                                                                                             diseases (e.g. rheumatoid arthritis, multiple scierosis, diabetes, systemic lupus erythromatosus and Grave's disease), inflammation, cancer (e.g. cancers of the bladder, brain, breast, colon and kidney, leukaemia), diseases of the nervous system and an infection of pathogenic
                                                                                   Sequence 51 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                      Polymorphic nucleic acids encoding e.g. amylases, cyclins, polymerases, oncogenes and histones, useful for diagnosing and treating, e.g. cancer, autoimmune diseases and infections -
                                                                                                                                                                                                                                                                                                       The present invention relates to oligonucleotides encoding polymorphic variants of proteins related to amylases, amyloid proteins, angiopoietin, apoptosis related proteins, cadherin, cyclin, polymerase, oncogenes, histones, kinases, colony stimulating factors, complement related
                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 3448; 4143pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             neuroprotective; antimicrobial; gene therapy; vaccine; amylase; cancer amyloid protein; angiopoletin; apoptosis related protein; cadherin; cyclin; polymerase; oncogene; histone; kinase; colony stimulating fact complement related protein; cytochrome; kinesin; cytokine; interferon; interleukin; G-protein coupled receptor; thioesterase; inflammation;
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27-DEC-2000; 2000US-0173419.
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Copyright (c) 1993 - 2000 Comp
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TITLE OF INVENTION: 17
RUMBER OF SEQUENCES: 17
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NUMBER OF SEQUENCES: ORTON GETVAR MOTIFITAND MATER & NEHETRADT.
CORRESPONDENCE ADDRESS:
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OPERATING SYSTEM: US/08/217/082A

SOFTWARE: PATCON DATA: US/08/217/082A

SOFTWARE: PATCON DATA: US/08/217/082A

APPLICATION NUMBER: US/07/840/716

CLASSIFICATION DATA: US/07/840/716

PATOR APPLICATION DATA: US/07/288/692

FILING DATE: 2-DATE: US/07/288/692

FILING DATE: 12-DATE: 3335-067-5:

NAME: FOION NUMBER: 3335-067-5:

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ADDRESSEE:
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COMPUTER READABLE FORM:
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STREET: San Jose
CITY: San Jose
CITY: California
STATE: California
COUNTRY: U.S.A.
COUNTRY: 95110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VORTINATION TYPE: HOPPY disk
MEDIUM TYPE: BM PC COMPATIBLE COMPOURES: PC-DOS/MS-DOS
OPERADIOS SYSTEM: PC-DOS/MS-TO
OPERADIO TO THE TOP TO THE T
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3 pcT-US93-13198-4119
3 pcT-US93-13198-325
1 US-08-171-39-325
1 US-08-475-228A-325
2 US-08-475-228A-325
2 US-08-79-17388-325
3 pcT-US93-10284-325
5 pcT-US93-10284-325
2 US-08-79-79-4-80
1 US-08-371-774-80
2 US-08-371-774-80
4 US-08-371-772A-1
4 US-08-31-072A-1
5 US-08-931-072A-1
6 US-08-931-072A-1
7 US-08-931-072A-1
7 US-08-931-072A-1
8 US-08-931-072A-1
9 US-08-931-072A-1
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sequence 17, Appli
sequence 17, Appli
sequence 6, Appli
sequence 27, Appli
sequence 27, Appli
sequence 37, Appli
sequence 3, Appli
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Sequence (1.1.)

Sequence (1.1.)

Patent No. 573403

GENERAL INFORMATION:

APPLICANT: Reed, John

TITLE OF INVENTION:

ANTICLES OF INVENTION:

NUMBER OF SEQUENCES: 17

ANDRESCOPE, OPTINE CHARLES EXPRESSING THE HUMAN BCL-2 GENE

ANDRESCOPE, OPTINE CHARLES THE CONTINUE OF SEQUENCES: 17

ANDRESCOPE, OPTINE CHARLES THE HUMAN BCL-2 GENE
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PRIOR APPLICATION SEP-193
PRIOR APPLICATION OFFI-192
APPLICATION OFFI-192
PRIOR APPLICATION OFFI-192
PRIOR APPLICATION USHBER: US 07/840,716
APPLICATION NOMBER: US 07/288,692
APPLICATION NOMBER: US 07/288,692
NAMEE: POITHEY, ANTENNION:
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COUNTRY:
COMPUTER READABLE FORM:
COMPUTER:
COMPUTER:
IBM PLOPPY disk
COMPUTER:
IBM PC COMPATIBLE
COMPUTER:

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APPLICATION NUMBER;
US 08/465,485
PRIOR APPLICATION DATA;
PRIOR APPLICATION DATA;
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICAMY: Reed, John
TITLE OF INVENTION: Regulation of bcl-2 Gene Expression
CORRESPONDENCES: 29
ADDRESSEE OF ADDRESS: 29
ADDRESSEE OF DELON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRATE: Virginia

STATE: Virginia

STATE: Virginia

STATE: Virginia
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ADDRESSEE:

P.C

224 Airport Parkway

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                                                                                                                                                                                                                                                                                                                                                                          Sequence 4, Application US/08465485A Patent No. 5831066
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
TELEPAS: (408) 436-2075
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 0 FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE:
                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Regulation of bc1-2 Gene Expression NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
               SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US-0/08/465,485A
FILING DATE: 05-JUN-1995
                                                                                                                                                                                                                                                                                                                                           APPLICANT:
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CITY: San Jose
STATE: California
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/217,082A FILING DATE: 24-MAR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OPERATING SYSTEM: PC-DOS/MS-DOS
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CLASSIFICATION:
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1755 S. Jefferson Davis Hwy., Suite 400
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Patent No. 6040181
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100.0%; Score 20; DB:
Best Local Similarity 100.0%; Pred. No. 0.4;
Matches 20; Conservative 0; Mismatches
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TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 0
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 08/124,256
FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
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TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: FOR PC COMPUTER: DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE:
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                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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             FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
                                                                                    APPLICATION NUMBER: FILING DATE: 20-SEP-PRIOR APPLICATION DATA:
                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/465,485
FILING DATE: 05-JUN-1995
                                                                                                                                             PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Fortney, Andrew D. REGISTRATION NUMBER: 34,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US 0 FILING DATE: 22-DEC-1988
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                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Arlington
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, ADDRESSEE: P.C. STREET: 1755 S. Jefferson Davis Hwy., Suite 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH:
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                                                                      APPLICATION NUMBER:
                                                                                                                                                                                                                     CLASSIFICATION:
                                                                                                                                                                                                                                                        APPLICATION NUMBER:
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                                                                                                           20-SEP-1993
22-DEC-1988
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US 07/840,716
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                                                                      US 07/840,716
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                 US 07/288,692
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Best Local Similarity

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US-08-648-322-13
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                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 519.
TELECOMMUNICATION INFORMATION:
TELEPHONE: (619) 554-2937
TELEPHAX: (619) 554-6312
INFORMATION FOR SEQ ID NO: 13:
SEQUENCE CHARACTERISTICS:
LENGTH: 31 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-648-322-13/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patent No. 6074872
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INFORMATION FOR SEQ ID NO: 4:
                                                            MOLECULE TYPE: HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING CLASSIFICATION: 4...
CLASSIFICATION: 4...
ATTORNEY/AGENT INFORMATION:
ATTORNEY/AGENT INFORMATION:
ATTORNEY AGENT INFORMATION:
ATTORNEY AGENT AG
                                ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Sutcliffe, Gregor J.
APPLICANT: de Lecea, Luis
TITLE OF INVENTION: CORTISTATIN: NEUROPEPTH
TITLE OF INVENTION: COMPOSITIONS AND METHODS
NUMBER OF SEQUENCES: 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 33 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 33 base pairs
TYPE: nucleic acid
STRANDENNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
                                                                                                                                TOPOLOGY:
                                                                                                                                                         STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/08/648,322
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STATE: Califor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29 GATGCACCTACCCAGCCTCC 10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10666 No. 6074872th Torrey Pines Road, TPC-8
                                NO
                                                                                                                                linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E: Floppy disk
IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                            NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  THE SCRIPPS RESEARCH INSTITUTE
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                                                                                            CDNA
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Pred. No. 0.4;
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Query Match

66.0%;

Score 13.2;

DB 3;

Length 31;

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RESULT 9
US-09-156-163A-10
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Patent No. 6319681
GENERAL INFORMATION:
APPLICANT: Dalie, Barbar
APPLICANT: Fan, Xuedong
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                                                                                                Sequence 10, Application US/09156163A Patent No. 6319681
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 10,
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APPLICATION NUMBER: US 60/021,710
FILING DATE: 12-UUL-1996
ATTORNEY/AGENT INFORMATION:
NAME: Dulak, No. 5853977man C.
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APPLICANT:
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CLASCITETION OF THE CONTROL OF THE C
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MEDIUM TYPE: Floppy disk
COMPUTER: Apple Macintosh
OPERATING SYSTEM: Macintosh 7.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Lunn, Charles
APPLICANT: Tan, Jimmy
APPLICANT: Zavodny, Paul
TITLE OF INVENTION: Mammalian TNF-a Convertases
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STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY:
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                                                                                                                                                                                                                                                                                                               8 CCTACCCAGCCTC 20
                                                                                                                                                                                                                                                                                                                                                                            7 cctacccagcctc 19
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Lunn, Charles
Tan, Jimmy
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100.0%; Pred. No. 7.3e+02;
tive 0; Mismatches 0;
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APPLICANT:

Lundell, Daniel

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                                                                                                                                                                                                                                                                                                                              US-08-646-538-32
                                                                                                                                                                                                                                                                                Sequence 32, App.:
Sequence 32, App.:
No. 6027881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
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                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: Apple Macintosh
OPERATING SYSTEM: Macintosh 8.1
SOFTWARE: Microsoft Word 6.0.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: MCLaughlin, Jaye P.
REGISTRATION NUMBER: 41.211
REFERENCE/DOCKET NUMBER: JB
TELECOMMUNICATION INFORMATION:
TELEPHONE: 908 298 5056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/889,909
FILING DATE: July 10, 1997
APPLICATION NUMBER:
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TITLE OF INVENTION: Mammalian TNF-a Convertases
                                                                                                                                                           APPLICANT: Gaitanaris, George A.
APPLICANT: Stauber, Roland H.
APPLICANT: Vournakis, John N.
TITLE OF INVENTION: Mutant Aequorea victoria Fluorescent
TITLE OF INVENTION: Proteins Having Increased Cellular Fluorescence
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                                                                                                                           CORRESPONDENCE ADDRESS:
COMPUTER READABLE FORM:
                                                                                                                                              NUMBER OF SEQUENCES:
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                                           STREET: Two Embarcac
CITY: San Francisco
STATE: California
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE:
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                                  COUNTRY:
                                                                                                          ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            H: 22 base pairs
nucleic acid
DEDNESS: single
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                                                                                                                                                                                                                                                                                                         Application US/08646538
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                                                                                     E: Townsend and Townsend and Crew LLP Two Embarcadero Center, 8th Floor
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Tan, Jimmy
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                                                                                                                                                                                                                                                      Pavlakis, George N.
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; OTHER INFORMATION: /note= "oligonucleotide #18990"
US-08-646-538-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-503-222-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 32,
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Best Local Similarity
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NAME: Weber, Kenneth A.
REGISTRATION NUMBER: 31,677
REFERENCE/DOCKET NUMBER: 015:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Pavlakis, George N.
APPLICANT: Gaitanaris, George A.
APPLICANT: Statuber, Roland H.
APPLICANT: Vournakis, John N.
TITLE OF INVENTION: Mutant Aequorea victoria Fluorescent
TITLE OF INVENTION: Proteins Having Increased Cellular Fluorescence
NUMBER OF SEQUENCES: 37
                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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                    ATTORNEY/AGENT INFORMATION:
NAME: Weber, Kenneth A.
REGISTRATION NUMBER: 31,677
                                                                                                                       PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: FILING DATE: No. 6
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
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                                                                                                                                                                                                                   COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0
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CITY: San Francisco
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: nucleic acid
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ZIP: 94111-3834
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                                                                               FILING DATE:
                                                                                                                                                              FILING DATE
REFERENCE/DOCKET NUMBER:
                                                                                                    APPLICATION NUMBER:
                                                                                                                                       CLASSIFICATION:
                                                                                                                                                                               APPLICATION NUMBER:
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Two Embarcadero Center, 8th Floor
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87.5%;
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                                                                                                      US/08/646,538
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      015280-249000
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US-08-646-538-33
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Best Local
                                                                                                                                                                          REFERENCE/DOCKET NUMBER: 01:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 33:
SEQUENCE CHARACTERISTICS:
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TELEPHONE: (415) 576-0200
TELEPAX: (415) 576-0300
INFORMATION FOR SEQ ID NO: 32:
                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIAN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Gaitanaris, George A.
APPLICANT: Stauber, Roland H.
APPLICANT: Vournakis, John N.
TITLE OF INVENTION: Mutant Aequorea victoria Fluorescent
TITLE OF INVENTION: Proteins Having Increased Cellular Fluorescence
NUMBER OF SEQUENCES: 37
                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
NAME: Weber, Kenneth A.
REGISTRATION NUMBER: 31,677
                                                                     FEATURE:
                                                                                    MOLECULE TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
STREET: Two Embarcadero Center, 8th Floor
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              LOCATION: 1..28
OTHER INFORMATION:
                                                                                                        TOPOLOGY:
                                                                                                                     TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE: No. 60
                                                  NAME/KEY:
                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION:
                                                                                                                                                         LENGTH:
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LOCATION: 1.26
OTHER INFORMATION:
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14; Conserv
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                                                                                                                                                       28 base pairs
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           /note= "oligonucleotide #18991"
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                                                             Matches
                                                                                         Query Match
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                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 28 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                        TELECOMUNICATION INFORMATION:
TELEPHONE: (415) 576-0200
TELEFAX: (415) 576-0300
                                                                                                                                                                                                     FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Pavlakis, George N. APPLICANT: Gaitanaris, George
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                                                                                                                                                    NAME/KEY:
LOCATION: 1..28
OTHER INFORMATION:
16 CACGTATCCAGCCTCC 1
                                                                          Local
                                                                                                                                                                                                                                                                                                                                                                        NAME: Weber, Kenneth A. REGISTRATION NUMBER: 31, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                  STRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER:
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                           5 cacctacccagcctcc 20
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Two Embarcadero Center, 8th Floor
                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            USA
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                                                                         64.0%;
87.5%;
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                                                                                                                                                  /note= "oligonucleotide #18991"
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87.5%;
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                                                                         Score 12.8; DB 4;
Pred. No. 9.3e+02;
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Pred. No. 9.3e+02;
0; Mismatches 2;
                                                          Mismatches
                                                                                      DB 4; Length 28;
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RESULT

US-08-774-065-12/c

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US-08-774-065-13
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                                                                                                                                                                                         Sequence 13, Application US/08774065
Patent No. 5989899
GENERAL INFORMATION:
APPLICANT: Bower, Benjamin
APPLICANT: Clarkson, Kathleen
APPLICANT: Larenas, Edmund
APPLICANT: Larenas, Edmund
APPLICANT: Ward, Michael
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
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Best Local
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APPLICANT: Bower, Benjamin
APPLICANT: Clarkson, Kathleen
APPLICANT: Larenas, Edmund
APPLICANT: Ward, Michael
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: 415-845-6504
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
STREET: YAL CITY: PALO ALTO CITY: CALIFORNIA
                                                                                                                               TITLE OF INVENTION: NOVEL OVERSIZED CELLULASE COMPOSITIONS TITLE OF INVENTION: FOR USE IN DETERGENT COMPOSITIONS AND TITLE OF INVENTION: IN THE TREATMENT OF TEXTILES
                                                      NUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
ADDRESSEE: GENENCOR INTERNATIONAL
STREET: 925 PAGE MILL ROAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OPERATING SYSTEM: DOS
SOFTWARE: FASTSEQ for Windows Version 2.0
CURENT APPLICATION DATA:
APPLICATION NUMBER: US/08/774,065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM: MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION: TELEPHONE: 415-846-7620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
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ADDRESSEE: GENENCOR INTERNATIONAL
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TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 39 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
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Local Similarity 87.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Glaister, Debra J. REGISTRATION NUMBER: 33, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: 925 PAGE MILL ROAD CITY: PALO ALTO STATE: CALIFORNIA
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Pred. No. 9.5e+02;
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                                                                 Matches
                                                                             Query Match
Best Local Similarity
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 33,888
REFERENCE/DOCKET NUMBER: GCT
TELECOMUNICATION INFORMATION:
TELEPHONE: 415-846-7620
TELEPAX: 415-845-6504
                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 39 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/08/774,065 FILING DATE: PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: FastSEQ for Windows Version 2.0 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                          LENGTH: 39 base pairs TYPE: nucleic acid STRANDEDNESS: single
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OPERATING SYSTEM:
SOFTWARE: FastSEC
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               4 gcacctacccagcctc 19
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4 GGACCTACCCAGTCTC 19
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                                                                 Conservative
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87.5%;
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                                                                             Score 12.8; DB 2; Pred. No. 9.5e+02;
                                                               Mismatches
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Search completed: June 28, 2002, 22:16:40 Job time: 8266 sec

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Maximum Match
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Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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E07533
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A47503
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AX157259
AR068139
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AR156317
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AX204020
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I06472
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AR082754 Sequence 20
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AR119736 Sequence 26
AR098300 Sequence 26
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AR116661 Sequence 6
AX116661 Sequence 10
AR117040 Sequence 10
AR117040 Sequence 20
AR117040 Sequence 37
IZ0509 Sequence 37
IZ0510 Sequence 38
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AF163943 Saccharom
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M28774 Human T-cel
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### ALIGNMENTS

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Sequence 4 from patent US 5831066.
AR052806
AR052606.1 GI:5975970
                                                                                 Regulation of bcl-2 gene expression patent: US 5831066-A 4 03-NOV-1998; Location/Qualifiers
                                                                                                                  Reed, J.C
                                                                                                                                                          Unknown
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          Sequence 3 from patent US 
196084
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                            196084
                                                                                                                                                                                                         Regulation of bc1-2 gene expression Patent: US 5831066-A 3 03-NOV-1998; Location/Qualifiers
                                                                                                                                                                                                                                                                              Unknown.
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196085
196085.1 GI:3940555
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RESULT 6
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                                  Production and use of recombinant protein biological activity Patent: US 6242570-A 4 05-JUN-2001;
                                                                           1 (bases 1 to 40)
Sytkowski, A.J.
                                                                                                                  Unknown.
                                                                                                                                                                    Sequence 4 from patent US AR156905
                                                                                                    Unclassified.
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DNA encoding erythropoietin multimers having modified sequences and its use to prepare EPO therapeutics Patent: US 6187564-A 16 13-FEB-2001;
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Sequence 16 from patent US
AR129866 AR129866.1 GI:14117763
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Sequence 7828 from Patent WO0194629
AX337319
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Avalon Pharmaceuticals (US)
Location/Qualifiers
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                               1 (bases 1 to 59)
Yamaoka,K., Ogawa,H., Sugimoto,Y., Masuda,K., Suga,T., Takagi,K.
and Yasuoka,S.
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                                                                                                             Nucleic acid sequence encoding trypsin-like enzyme and process for producing the enzyme patent: US 5804410-A 4 08-SEP-1998;
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pred. No. 7.
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Pred. No. 1.9e+04;
  Score 16.2; DB 6; Pred. No. 2.8e+04;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YAMAOKA KAZUYOSHI, MASUDA KENICHI, OGAWA HIROKO, SUGA TETSUYA, SUGIMOTO YOSHINORI, TAKAGI KENICHIRO, YASUOKA SUSUMU C12N9/76,C07H21/04,C12N15/09//A61K38/46,A61K38/46,(C12N9/76,
                                                                                                                    ggggtacggaggctgggtagg 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (human)
JP 1996089246-A/3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             27-JUL-1995 JP 1995191775
29-JUL-1994 JP 94P 1786
                                                                                          GGGGCACGGAGGCTGAGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               topology: Linear;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       strandedness: Double;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C12R1:19);
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard; RNA; HUM; 59
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (Rel. 52, Created)
(Rel. 65, Last updated, Version
                                                                                                                                                                                                                                                                                           BP; 11 A; 12 C;
                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                          /db_xref="taxon:9606"
                                                                                                                                                                                                       49.1%;
85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/tissue_type="Respiratory tract"
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                                                                                                                                                                                                                                                                                             26 G; 10 T; 0 other;
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Pred. No. 2.
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LOCUS

AX116165

51 bp

DNA

linear

PAT 11-MAY-2001

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AAGGAAGCTTGCNARRTGCATYTG 24

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Lassified
Libases 1 to 30)
MURINE GENE PARTICIPATING IN HOMOLOGOUS RECOMBINING REACTION
MORITA TAKASHI, MATSUSHIRO AIZO
OC Artificial Sequences.
PN JP 1994141863-A 2 24 MAY-1994;
MORITA TAKASHI, MATSUSHIRO AIZO
OC Artificial Sequences.
PN JP 1994141863-A/2
PD 24-MAY-1992 JP 199229714
PF 10-MORITA TAKASHI, MATSUSHIRO AT-
CC C12N15/12,C12N1/19/C12O<sup>-</sup>
CC strandedness: Singl-
CC topology: Linea-
FH Key
FT SO<sup>-</sup>
FT
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acggaggctgggtaggtgcatctg 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                acggggtacggaggctgggtaggtgcatct 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           E07533 30 bp DNA linear PAT 29-SEP-1997 Oligonucleotide primer encoding the amino acid sequence included in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genotyping reagents, kits and methods of use thereof Patent: WO 0129262-A 1288 26-APR-2001; Orchid BioSciences, Inc. (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Picoult-Newburg, L. and Pohl, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
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                                            Conservative
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                                                                                                                           /organism="unidentified"
/db_xref="taxon:32644"
5 c 7 g
                                                                                                                                                                                     /organism='Artificial sequences'.
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/db_xref="taxon:9606"
11 c 24 g
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                                                      46.7%;
66.7%;
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70.08;
                                                     Score 15.4; DB 6;
Pred. No. 6.4e+04;
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135959
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                                                                                                   AGGTTGTTCGGGTCCAGGGAAGGTGCAGGTGGT 34
57 bp
Sequence 7 from patent US 5976551.
AR082754
                                                                                                                                                                                                                                                                                                    l (bases 1 to 36)
Bauer, S. Christopher., Abrams, M.A., Braford-Goldberg, S.R.,
Caparon, M.H., Baston, A.M., Klein, B.K., McKearn, J.P., Olins, P.,
Paik, K. and Thomas, J.W.
Interleukin-3 (IL-3) multiple mutation polypeptides, recombinant production of the same, and corresponding therapeutic methods
Patent: US 5604116-A 200 18-FEB-1997,
                                                                                                                                                                                                                                                                                                                                                                                                                           Unknown
                                                                                                                                                                                                                                                                                                                                                                                                           Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                       Unknown.
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I35959
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Bauer, S. Christopher., Braford-Goldberg, S. Ruth., Caparon, M. Helena., Easton, A. Michael., McKearn, J. Patrick. and Olins, P. Olafs.
Recombinant human interleukin-3 (IL-3) multiple mutation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            36 bp I
Sequence 200 from patent US 5817486.
AR044319
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5 c 17 g
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5 c 17 g
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66.7%;
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Pred. No. 6.3e+04;
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Pred. No. 6.3e+04;
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AR119736
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Search completed: June 28, Job time: 8344 sec
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Best Local Similarity 67.7%;
Matches 21; Conservative
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Best Local Similarity
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Sequence 7 from patent US 6153408.
AR119736 GI:14102435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Altered major histocompatibility complex (MHC) determinant and methods of using the determinant Patent: US 6153408-A 7 28-NOV-2000;
Location/Qualifiers
1. .57
                                                                                                                                                                                                                            Unclassified.
1 (bases 1 to 57)
Abastado,J., Mottez,E., Kourilsky,P., Casrouge,A., Ojcius,D. and
                                                                                                                                                                                                                                                                     Unknown
                                                                                                                                                                                                                                                                               Unknown.
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          2002, 22:10:53
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    Mismatches

                                                                                                   Score 15; DB 6; Length 57; Pred. No. 8.9e+04;
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GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.

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Total number of hits satisfying chosen parameters:
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Perfect score:
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Listing first 45 summaries
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2: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1981.DAT:*

3: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1982.DAT:*

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41.022 Million cell updates/sec
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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49.1	49.1	50.3	53.3	53.3	55.2	60.6	100.0	100.0	Query Match
51	45	50	40	35	47	20	33	33	Query Match Length DB
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AAL34288	AAA05784	AAA76605	AAX25704	AAT79533	AAZ68500	AAV19653	AAV19654	AAQ86646	ID
Human SNP oligonuc	Streptavidin displ	Human clone cg2143	Human erythropoiet	Fos leucine zipper	Human map-related	Human bcl-2 antise	Human bcl-2 oligon	Bcl-2 splice donor	Description

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AAA04062	AAS98527	AAF80007	AAX32953	ABL00869	AAH90214	AAL29890	AAQ75496	AAF23380	AAF23379	AAF74344	AAF74343	AAF61267	AAX02137	AAQ42898	AAQ91280	AAV44757	AAH38988	AAI73646	AAL32214	AAQ65680	AAD16127	AAV09157	AAF28284	AAT28624	AAT28625	AAZ21074	AAC90183	AAL32158	AAQ64086	AAH38492	AAL30308	AAZ57423	AAS03844	AAS04737	AAT10693
Polymorphic fragme	Human protective D		DNA sequence of pr	Human amino acid c	Human clone cg4402	Human SNP oligonuc	HPV primer probe H	Oligonucleotide us	Oligonucleotide us	Repetitive protein	Repetitive protein	A. thaliana dihydr	Human FEN-1 DNA fr	HLA type analysis	Exo-cellobiohydrol	Primer for Human o	Human SNP flanking	Human silent SNP c	Human SNP oligonuc	Probe for progenit	Human VEGF-B167 ma	Preprocortistatin	Oligonucleotide SP	Quadruplex/duplex	Quadruplex/duplex	Human caveolin pro	Spacer SC-15. Syn	ă	Rad51 primer. Syn	SNP flan	Human SNP oligonuc	Oligonucleotide PC	Synthetic gene shM	Synthetic gene shM	ike e

### ALIGNMENTS

### RESULT AAQ86646

AAQ86646 standard; DNA; 33 BP.

## AAQ86646;

27-SEP-1995 (first entry)

Bcl-2 splice donor site.

Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy; leukemia; lymphoma; solid tumor; breast cancer; autoimmune disease;

## Synthetic

WO9508350-A.

30-MAR-1995.

20-SEP-1994; 94WO-US10725.

20-SEP-1993; 93US-0124256.

(REED/) REED J C.

Reed JC;

WPI; 1995-139394/18

Anti-code oligomers which bind to bcl-2 mRNA - of human solid tumours, esp. breast cancer  $\,$ for the treatment

Matches

Best Local Similarity 100 Matches 33; Conservative

100.08;

Pred. No. 0.00046; mismatches 0;

Indels

0;

Gaps

0;

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RESULT
AAV19654
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Best Local
                                                              strategic sites such as the translation initiation site, donor and acceptor splicing sites, or sites for transportation or degradation. Blocking translation at such strategic sites prevents the formation functions.
                                                                                                    This is a human bc1-2 oligonucleotide based on which an antisense oligonucleotide complementary to the splice donor site of the human bc1-2 mRNA can be constructed. Bc1-2 antisense oligonucleotides straddle
                     functional bc1-2 gene product. These oligonucleotides treating cancers associated with high levels of bc1-2 especially lymphomas and some leukaemias.
                                                                                                                                                               Disclosure; Columns 3-4; 21pp; English.
                                                                                                                                                                                         Anti-sense oligo:nucleotide(s) complementary to BCL-2 mRNA - useful for treating cancers, e.g. lymphoma(s) and some leukaemia(s)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The antisense oligonucleotide SD-AS (AAQ86645) is complementary to a portion of the splice donor site of the pre-mRNA coding strand of the human bcl-2 gene. It reduces the expression of bcl-2 gene product, thereby inducing programmed cell death of certain cancer cells. The corresp. bcl-2 sense splice donor site region was synthesized for use
                                                                                                                                                                                                                                                                   Reed
                                                                                                                                                                                                                                                                                           (UYPE-) UNIV
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22-DEC-1988;
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88US-0288692.
94US-0217082.
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Pred. No. 0.00046;
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                                     gene expression,
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Query Match

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16 G; 7 T; 0 other;

Score 33;

DB 19;

Length 33;

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                      AAZ68500 standard;
                                                                                                                                                                                                      This antisense oligonucleotide is complementary to the splice donor site of the human bcl-2 mRNA. The Bcl-2 antisense oligonucleotides are phosphorothioate derivatives and can straddle strategic sites such as the translation initiation site, donor and acceptor splicing sites, or sites for transportation or degradation. Blocking translation at such strategic sites prevents the formation of a functional bcl-2 gene product. These oligonucleotides may be used for treating cancers associated with high levels of bcl-2 gene expression, especially lymphomas and some
AAZ68500
                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                          Reed
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22-DEC-1988;
                                                                                                                                                                                                                                                                                                                                 for treating cancers, e.g. lymphoma(s)
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88US-0288692.
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100.0%; Pr
0;
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RESULT
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                     AAZ65654 to AAZ69578 represent human biallelic markers from the present invention, which contain a polymorphic base at position 24 of their nucleotide sequences. AAZ69579 to AAZ77440 represent amplification primers for the biallelic markers. The biallelic markers of the invention have a variety of uses: they can be used for high density mapping of the human genome, and in complex association studies and haplotyping studies which are useful in determining the genetic basis for disease states. Compositions and methods of the invention can also be useful for the identification of the targets for the development of pharmaceutical agents and diagnostic methods, as well as the characterisation of the differential efficacious responses to and side
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human genome; biallelic marker; high density diseques genomic map; haplotype; phenotype; polymorphic base haplotyping; hybridisation; identification; charact diagnosis; single nucleotide polymorphism; SNP; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         map
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23-NOV-1998;
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              06-MAR-1998
                                           AAT79533;
                                                                                                                                                                                                                                                                       Sequence 47 BP;
                                                                                                                                                                                                                                                                                                                                              treatment
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                                                                                                  G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of the human genome
                                                                                                                                                                                                                                                                                                                               The SEQ ID NOS 2852, 2913, 2974, 3035,
                                                                                                                                           GGGGCTGTGTAGTTGCATCTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              u
۲۰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        biallelic markers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          map-related
                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                          from pharmaceutical agents acting on a disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page 837; 2745pp; English.
                                                                                                                                                                                                                                                                                                     present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Blumenfeld
                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; biallelic marker; high density disequilibrium map;
haplotype; phenotype; polymorphic base; genotyping;
hybridisation; identification; characterisation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-0082614
98US-0109732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-IB00822.
                                                                                                                                                                                                                                                                        16 A; 13 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers replace(24,C)
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /standard_name= "single nucleotide polymorphism"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          biallelic marker SEQ ID NO:2847
                                                                       DNA;
                                                                                                                                                                                                             55.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ĭ
                                                                       ա
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        used to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chumakov
                                                                       ΒP
                                                                                                                                                                                                                                                                        10
                                                                                                                                                                                                  0;
                                                                                                                                                                                                                Score 18.2;
Pred. No. 3.
                                                                                                                                                                                                                                                                        G; 8 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        construct a high density disequilibrium
                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                .4e+02
                                                                                                                                                                                                                             DB 21;
                                                                                                                                                                                                                                                                                                                                 3096, 3157, 3227,
                                                                                                                                                                                                                                                                                                                  the
                                                                                                                                                                                                                            Length 47;
                                                                                                                                                                                                                                                                                                                  Sequence Listing
                                                                                                                                                                                                                                                                                                                                                          as well as other
                                                                                                                                                                                                  0,
                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                  0,
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Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                     Primers FR618 (AAT79533) and FR619 (AAT79534) were used in the PC amplification of DNA encoding the leucine zipper domain of fos transcription factor. The PCR product was used to create vector pUC18-IMPfos. This was used in a novel method of identifying nucleic acid sequences that encode interacting peptides or proteins. The method involves generating 2 libraries of recombinant vectors, expressing members of the libraries in host cells so that at least one interaction is established, and selecting for the generation of a screenable or selectable
                                                                                                                                                                                                                                               property representing the interaction of polypeptides. pUC18-IMPfos was used in an experiment to demonstrate selectively infective phage (SIP)-based library versus library screening via in vitro recombination of separately constructed libraries into one phage vector. In this case, the cognate pairing is from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Identification of interacting polypeptide encoding nucleic acid sequences - e.g. to identify protein-protein interactions, which play an important role in biological processes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ge L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-SEP-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protein-protein interaction; interacting polypeptide; polyphage principle; Fos; transcription factor; PCR; primer; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 6; Page 41; 105pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1997-448687/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-FEB-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-FEB-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9732017-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fos leucine zipper primer FR618
                                                                                                                                                  Sequence 35 BP; 1 A; 9 C; 16 G; 9 T; 0 other;
                                                                                                                                                                                                                     interaction between jun and fos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (MORP-) MORPHOSYS
                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                96EP-0102852
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GES PROTEINOPTIMIERUNG MBH.
                             53.3%;
71.9%;
Score 17.6; D
Pred. No. 5.8e
0; Mismatches
                                 8e+02
                                                                  DB
                                                               18;
                                                               Length
                                                                     35,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PCR
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RESULT 6
AAX25704/c
                                                                                                                                                                                  Matches
                                                                       AAX25704 standard; DNA;
Human erythropoietin homodimer fusion
                         21-MAY-1999
                                                AAX25704;
                                                                                                                                  1 cgccgtacggcggctctggtggtggttctggt 32
                                                                                                                                                2 cggggtacggaggctgggtaggtgcatctggt 33
                                                                                                                                                                                    23;
                                                                                                                                                                                    Conservative
                        (first entry)
                                                                          40
                                                                          ВP
                                                                                                                                                                                    0;
gene primer EpA3-3
                                                                                                                                                                                      9
                                                                                                                                                                                      Indels
                                                                                                                                                                                      0
                                                                                                                                                                                      Gaps
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밁 Š

Human;

biological activity; anaemia; progenitor; leucocyte; granul primer; PCR; amplification.

leucocyte; granulocyte;

erythropoietin; dimer; trimer; polymer; fusion protein; cancer; ical activity; anaemia; proliferation; differentiation; ss;

blood; myelosuppressed

Synthetic

Homo sapiens

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RESULT
AAA76605
                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                 Matches
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                       erythropoietin (EPO) gene in order to construct an EPO homodimeric fusion gene (AAX25701). The invention relates to the production of dimeric, trimeric or polymeric fusion proteins with increased biological activity. The fusion proteins are used to treat or prevent protein-related deficiency states, specifically, where the protein is erythropoietin (EPO; AAX25689), anaemia, but also for increasing proliferation, differentiation and activity of haematopoietic progenitors (e.g., increasing numbers of leucocytes and granulocytes in the blood of myelosuppressed patients) or for treating cancer and other cell growth
           17-NOV-1998;
16-NOV-1999;
                                       17-NOV-1999;
                                                                                                         Key
variation
                                                                                                                                     Homo
                                                          25-MAY-2000
                                                                            WO200029623-A2
                                                                                                                                                        detection;
                                                                                                                                                                                Human clone cg21433543 polymorphic site, SEQ
                                                                                                                                                                                                      16-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New fusion protein with increased activity comprising at least protein molecules - used to, e.g. treat erythropoietin related deficiency states for treatment of anaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI;
                                                                                                                                                                  Human;
                                                                                                                                                                                                                                           AAA76605 standard; cDNA; 50 BP
                                                                                                                                                                                                                                                                                                                                                                               Sequence 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   03-FEB-1998;
10-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Primers AAX25703-X25708 were used to PCR amplify the human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 1; Page 54; 119pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sytkowski
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (BETH-) BETH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-JUL-1998;
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                                                                                                                                                                                                                                                                                            32
                                                                                                                                                                                                                                                                                                     1 acggggtacggaggctgggtaggtgcatctgg 32
                                                                                                                                                                                                                                                               7
                                                                                                                                                                                                                                                                                           ACAGGGGACAGAGCCGGCGGTGGTGGATCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1999-120911/10
                                                                                                                                                                single nucleotide polymorphism; SNP;
                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                       identification;
                                                                                                                                                                                                                                                                                                                                                                                BP;
                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                     (first entry)
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           98US-0109024
99US-0109024
                                       99WO-US27293
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97US-0890929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-US13944
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                                                                                                        replace (25..26, AGC)
                                                                                                                Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                         53.3%;
                                                                                                                                                                                                                                                                                                                                                                                19
                                                                                                                                                                                                                                                                                                                                                                              ç;
                                                                                                                                                      gene therapy; ss
                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                          Score 17.6;
Pred. No. 5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDICAL CENT
                                                                                                                                                                                                                                                                                                                               Mismatches
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                                                                                                                                                                                                                                                                                                                                                                              Τ;
                                                                                                                                                                                                                                                                                                                                                                              0 other;
                                                                                                                                                                                                                                                                                                                                          .9e+02;
                                                                                                                                                                                                                                                                                                                                                 DB 20;
                                                                                                                                                                                   ID
                                                                                                                                                                                                                                                                                                                                9;
                                                                                                                                                                                   NO:288
                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                  40;
                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       two
                                                                                                                                                                                                                                                                                                                               Gaps
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DЪ
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PA (CURA-) CURAGEN CORP.

XX

XX

Shimkets RA, Leach MD;

XX

WPI; 2000-387826/33.

XX

WPI; 2000-387826/33.

XX

Human nucleic acids containing single nucleotide polymorphisms, useful pr

for treating a subject suffering, or at risk from a pathology due to pr

the presence of a sequence polymorphism -

XX

XX

Claim 1; Page 245; 543pp; English.

XX

Sequences AAA76318-A77509 represent 1192 human nucleic acid sequences CC which contain single nucleotide polymorphisms (SNPs). Sequences 1 to CC contain silent SNPs. Sequences 1113 to 112 (AAA77430-A77509) are CC consecutive pairs of nucleotides containing SNPs which result in changes in the corresponding amino acid sequences (AAB11749-B11828). The SNPs in CC sequences 1113 to 1128 (AAA7740-A77509) are suit (CC changes, whilst those in sequences 1129 to 1186 (AAA7746-A77509) result (CC changes, whilst those in sequences 1129 to 1186 (AAA7746-A77509) result (CC changes, whilst those in sequences 1129 to 1186 (AAA7746-A77509) result (CC changes, whilst chose in sequences 1129 to 1186 (AAA7746-A77509) result (CC changes, whilst chose in sequences 1129 to 1186 (AAA7746-A77509) result (CC changes, whilst chose in sequences 1129 to 1186 (AAA7746-A77509) result (CC changes, whilst chose in sequences 1187 to 1192 to 1186 (AAA7746-A77509) result (CC changes, whilst chose in sequences 1187 to 1192 to 1186 (AAA7746-A77509) result (CC changes, whilst chose in sequences 1187 to 1192 to 1186 (AAA7746-A77509) result (CC changes, whilst chose in sequences 1187 to 1192 to 1186 (AAA7746-A77509) result (CC changes, whilst chose in sequences 1187 to 1192 to 1186 (AAA7746-A77509) result (CC changes, whilst chose in sequences 1187 to 1192 to 1186 (AAA7746-A77509) result (CC changes, whilst chose in sequences 1187 to 1192 to 1186 (AAA7746-A77509) result (CC changes, whilst chose in sequence 1187 to 1192 to 1186 (AAA7746-A77509) result (CC changes, whilst chose in sequence 1187 to 1192 to 1186 (AAA7746-A77509) result (CC changes, whilst chose in sequence 1187 to 1192 to 1186 (AAA7746-A775
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Matches
                                            Query Match
Best Local :
19 ctgcgtaccgaggctggggtagcgctcctgg 49
                                            Local Similarity
         Conservative
                                           50.3%;
71.0%;
                                   0; Mismatches
                                           Score 16.6;
Pred. No. 1
                                          .5e+03
                                                    В
                                                   21;
                                   9;
                                   Indels
                                                   Length
                                                    50;
                                  0;
                                  Gaps
                                   0
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RESULT 8
AAA05784/c
ID AAA05784;
XX
AAO5784;
XX
DT 05-JUN-2000 (first entry)
XX
DE Streptavidin display linker DNA, SEQ ID NO:242.
XX
Phage display; bacteriophage M13; fusion protein; major coat protein;
XX
KW Protein VIII; phagemid vector; electroporation; combinatorial library
XX
KW streptavidin; SAY; ss.
```

08-OCT-1998; 10-MAY-1999; 19-MAY-1999;

98US-0094291. 98US-0103514. 99US-0133296. 99US-0134870.

27-JUL-1998;

22-JUL-1999;

99WO-US16596

WO200006717-A2

(GETH ) GENENTECH INC

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AAL34288
IID AAL2
XX
AC AAL3
AC AC AAL3
AC AC AAL3
AC AC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cc of using these compositions. The fusion proteins the invention are well co fusing these compositions. The fusion proteins the invention are well can be used to alter the number of fusion proteins incorporated into a covered to increase the composition of fusion proteins incorporated into a conversely, hypo-functional variants can be used to increase the cc conversely, hypo-functional variants can be used to decrease fusion cc protein incorporation. This is useful for tailoring the incorporation of cc fusion proteins into virus particles to achieve a desired level of cc valency. The variant replicable plasmid/phagemid vectors are useful for conversely polypeptides of interest. The methods are useful for improving the transformation of cells by highly purifying DNA. The present continue the conductance associated with a unit mass of DNA. This is concentration of DNA present. The increase in DNA entering the host cell concentration of DNA present. The increase in DNA entering the host cell concentration and allows the present of transformation and allows the present areas players combinatorial libraries which overcomes the prior
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fusion proteins comprising a heterologous protein and a viral variant major coat protein useful in phage display systems for improving transformation efficiency –
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to novel fusion proteins comprising a heterologous polypeptide fused to a variant (non-wild type) bacteriophage major coat protein (protein VIII). The invention also relates to replicable expression vectors which contain a gene encoding the fusion protein; host cells containing the expression vectors; phages which display the fusion protein on their surface; phage libraries displaying a plurality of different fusion proteins on viral surfaces; and methods a plurality of different fusion proteins on viral surfaces; and methods
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Fig 7B; 118pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     one to prepare larger combinatorial libraries which overcomes the prior art problem of small library size using recombinant DNA. Sequences AAA05768-A05795 represent DNA encoding linkers selected for display
                                                                                            Immunosuppressive; immunostimulatory; antiinflammatory; cytostatic; neuroprotective; antimicrobial; gene therapy; vaccine; amylase; cancer; amyloid protein; angiopoietin; apoptosis related protein; cadherin; cyclin; polymerase; oncogene; histone; kinase; colony stimulating factor; complement related protein; cytochrome; kinase; cytokine; interferon; interleukin; G-protein coupled receptor; thioesterase; inflammation; multifactorial disease; autoimmune disease; infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 45 BP; 6 A; 33 C; 6 G; 0 U; 0 other;
                                                                          nervous system disease; ss.
                                                                                                                                                                                                                                                                                                Human SNP oligonucleotide #7496.
                                                                                                                                                                                                                                                                                                                                                          24 - JAN - 2002
                                                                                                                                                                                                                                                                                                                                                                                                       AAL34288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAL34288 standard; DNA; 51 BP
                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   streptavidin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000-183122/16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGGTCGGGGGGGGGGGTCGGTGCGGCTGG 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (SAV)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               49.18;
72.48;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
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               PR XXX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAT10693
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                                                                                                                                                                                                                                                                Trypsin; fibrinogen; thrombin; expectorant; asthma; VIP; vasoactive intestinal peptide; protease; primer; PCR; amplification; ds.
               29-JUL-1994;
                                                               31-JUL-1995;
                                                                                                                 08-FEB-1996
                                                                                                                                                                 AU9527248-A
                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                               Trypsin-like enzyme
                                                                                                                                                                                                                                                                                                                                                                                                                    26-MAY-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10
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(first entry)

0;

DNA fragment.

respiratory disease; influenza virus;

94JP-0178607 95AU-0027248

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Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 apoptosis related proteins, cadherin, cyclin, polymerase, oncogenes, histones, kinases, colony stimulating factors, complement related proteins, cytochromes, kinesins, cytokines, interferons, interleukins, proteins, cytochromes, kinesins, cytokines, interferons, interleukins, groteins, cytochromes, kinesins, cytokines, interferons, interleukins, proteins coupled receptors and thioesterases. The present sequence is one such oligonucleotide. The oligonucleotides and treatment of by them may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate expression of the proteins listed above. Disorders that may be prevented, diagnosed and/or treated include multifactorial diseases with a genetic component, such as autoimmune diseases (e.g. rheumatoid arthritis, multiple sclerosis, diabetes, systemic lupus erythromatosus and Grave's disease), inflammation, cancer (e.g. cancers of the bladder, brain, breast, colon and kidney, leukaemia), diseases of the nervous system and an infection of pathogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                polymorphic nucleic acids encoding e.g. amylases, oncogenes and histones, useful for diagnosing and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-DEC-1999; 99US-0173419
27-DEC-2000; 2000US-0173419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-DEC-2000; 2000WO-US35498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200147944-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to oligonucleotides encoding polymorphic variants of proteins related to amylases, amyloid proteins, angiopoietin,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 3548; 4143pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cancer, autoimmune diseases and infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-465210/50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (CURA-) CURAGEN CORP
AAT10693;
                                                                   AAT10693 standard; DNA; 59
                                                                                                                                                                                                                                                                      4 gggtacggaggctgggtaggtgcatctgg 32
                                                                                                                                                                                                                                  7 gggtaaggagcctttgggggtccacctgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BP; 9 A; 11 C;
                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                49.18; 72.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20 G; 11 T; 0 other;
                                                                          ВP
                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                Score 16.2; DB 22
Pred. No. 2.1e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 22;
                                                                                                                                                                                                                                                                                                                                                                                       œ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cyclins, polymerases,
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 51;
                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                           0
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RESULT 11
AAS04737/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                      shMOBP/MS; PCR primer; ss; immunogenic epitope cluster; IEC;
synthetic human myelin-oligodendrocytic basic protein; autoantigen;
autoimmune disease; multiple sclerosis; rheumatoid arthritis;
WPI; 2001-300515/31
                         Ben-Nun A,
                                                     (YEDA ) YEDA RES & DEV CO LTD.
                                                                                                           26-OCT-2000;
                                                                                                                                         03-MAY-2001.
                                                                                                                                                                   WO200131037-A2
                                                                                                                                                                                               DILIO
                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                       Crohn's disease; ulcerative colitis.
                                                                                                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                                                               07-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                     AAS04737 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 9 describes the cloning of cDNA region encoding trypsin-like enzyme isolated from cough phlegm.
Four oligonucleotides are used for PCR: TRY-1 (AAT10694), TRY-8 (AAT10695), TRY-10 (AAT10696) and TRY-11 (AAT10697).

TRY-1 corresponds to from A1 to A23 of the sequence given in AAT10693, which is part of a cDNA encoding the trypsin-like enzyme. TRY-8 corresponds to from G16 to T40 of AAT10693.

TRY-10 is capable of annealing to the 3'-terminus of poly(A)+ RNA.

TRY-11 is identical to the 5'-terminus side 19 residues of TRY-10.
                                                                                                                                                                                                                                                                            insulin-dependent diabetes mellitus; myasthenia gravis; uveitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 59 BP; 11 A; 12 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        After amplification, plasmid p19-33 was obtained. p19-33 encodes part of the N-terminus amino acid sequence 20 residues of the trypsin-like enzyme isolated from the cough phlegm (see AAT10698)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 9; Page 43; 65pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nucleic acid sequence encoding fibrinogen, used as expectorant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        diseases, e.g. bronchial asthma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1996-117356/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Masuda K,
                                                                                                                                                                                                                                                 autoimmune hepatitis; thyroiditis; insulitis; orchitis; diopathic thrombocytopenic purpura; inflammatory disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (TEIJ ) TEIJIN LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     w
                                                                                                                                                                                              sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ggggcacggaggctgaggagg 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ggggtacggaggctgggtagg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                   gene shMOBP/MS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ogawa H,
, Yasuoka
                          Kerlero De
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                           2000WO-IL00688.
                                                                                 99IL-0132611.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            49.1%;
85.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Suga T,
                         Rosbo N,
                                                                                                                                                                                                                                                                                                                                                                                                                                       66
                                                                                                                                                                                                                                                                                                                                                 PCR primer #4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26 G; 10 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 16.2; DB 17
Pred. No. 2.2e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sugimoto Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    trypsin-like enzyme - which digests
t in treatment of respiratory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                      Sappler GP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Takagi K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                  autoimmune hepatitis; thyroiditis; insulitis; orchitis; idiopathic thrombocytopenic purpura; inflammatory disease; Crohn's disease; ulcerative colitis.
                                                                                                                                                                                                                                                                                                                                                                                                             shMOBP/E; PCR primer; ss; immunogenic epitope cluster; IEC;
synthetic human myelin-oligodendrocytic basic protein; autoar
autoimmune disease; multiple sclerosis; rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              basic protein containing immunogenic epitope clusters (IEC) from MOBP. The synthetic human target autoantigen genes of the invention comprise sequences coding for at least 2 IECs of autoantigen(s) related to a specific autoimmune disease. The synthetic human target autoantigen genes are useful for treating autoimmune diseases such as multiple sclerosis, insulin-dependent diabetes mellitus, rheumatoid arthritis, myasthenia
                                                                                                          Ben-Nun A,
                                                                                                                                          (YEDA ) YEDA RES & DEV CO LTD.
                                                                                                                                                                                                          26-OCT-2000;
                                                                                                                                                                                                                                          03-MAY-2001
                                                                                                                                                                                                                                                                                                                       Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gravis, uveitis, autoimmune hepatitis, thyroiditis, insulitis, orchitis, idiopathic thrombocytopenic purpura, and inflammatory diseases (Crohn's disease, ulcerative colitis). The synthetic human target autoantigen genes are also useful for diagnosis and/or monitoring the progression of the autoimmune disease.
                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                              insulin-dependent diabetes mellitus; myasthenia gravis; uveitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAS03844;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAS03844 standard; DNA; 69 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              encoding shMOBP/MS (synthetic human myelin-oligodendrocytic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           diabetes mellitus, rheumatoid arthritis, myasthenia gravis, and uveitis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          autoimmune diseases such as multiple sclerosis, insulin-dependent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel synthetic human target autoantigen gene useful for treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             40 ACTTGGCACGGCGGCTGGTACGGGTCTTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 acggggtacggaggctgggtaggtgcatctgg 32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sequence is a PCR primer used in the construction of a nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5; Fig 26; 182pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene shMOBP/E, PCR primer #4.
                                                                                                          Kerlero De
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP; 17 A; 28 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                          2000WO-IL00688
                                                                                                                                                                          99IL-0132611.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         48.5%;
                                                                                                          Rosbo N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15 G; 6 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                        Sappler GP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .6e+03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 66;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                              autoantigen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
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diabetes mellitus, rheumatoid arthritis, myasthenia gravis, and uveitis Novel synthetic human target autoantigen gene useful for treating autoimmune diseases such as multiple sclerosis, insulin dependent WPI; 2001-300515/31.

Example 2; Fig 9; 182pp; English

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RESULT 13
AAZ57423/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Db
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            idiopathic thrombocytopenic purpura, and inflammatory diseases (Crohitis, disease, ulcerative colitis). The synthetic human target autoantigen genes are also useful for diagnosis and/or monitoring the progression of the autoimmune disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The sequence represents a PCR primer used in the construction of a nucleic acid encoding shMOBP/E (synthetic human myelin-oligodendrocytic basic protein containing immunogenic epitope clusters (IEC) from MOBP. The synthetic human target autoantigen genes of the invention comprise sequences coding for at least 2 IECs of autoantigen(s) related to a sequences coding for at least 2 IECs of autoantigen(s) related to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          are useful for treating autoimmune diseases such as multiple sclerosis, insulin-dependent diabetes mellitus, rheumatoid arthritis, myasthenia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     specific autoimmune disease. The synthetic human target autoantigen genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Oligonucleotide PCR primer pair #3 primer #1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                     The present invention describes a special DNA sequence which can to synthesise three pairs of high-specificity primers useful for discriminating if black snake, tortoise plastron and forest frog true or false by simple polymerase chain reaction (PCR) of their AAZ57419 to AAZ57424 represent specifically claimed primers from present invention. The primers can be used to make a reagent box
                                                                                                                                                                                                       WPI;
                                                                                                                                                                                                                                 Wang
                                                                                                                                                                                                                                                                                                                                                                       CN1232085-A
                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            07-APR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAZ57423;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAZ57423 standard;
                         discriminating medicinal materials with high speed and
                                                                                                                                        Claim 1;
                                                                                                                                                                ASTOLIOI
                                                                                                                                                                                                                                                            (UYNA-)
                                                                                                                                                                                                                                                                                        31-MAR-1999;
                                                                                                                                                                                                                                                                                                                   31-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                             medicinal;
                                                                                                                                                                                                                                                                                                                                                                                                                                         discrimination;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      PCR primer; Zaocys dhumnade; Tortoise plastron; Oviductus ranae;
                                                                                                                                                                               Polymerase chain reaction (PCR)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 acggggtacggaggctgggtaggtgcatctgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTTGGCACGGCGGCTGGTTCTGGTCTTCTGG
                                                                                                                                                                                                       2000-098492/09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                              UNIV NANJING.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              69
                                                                                                                                                                                                                                   Zhou K,
                                                                                                                                     Page 1; 4pp; Chinese.
                                                                                                                                                               plastron and Oviductus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                         99CN-0114133
                                                                                                                                                                                                                                                                                                                   99CN-0114133
                                                                                                                                                                                                                                                                                                                                                                                                                                          black snake; forest frog; oil; reagent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21 A; 21 C;
                                                                                                                                                                                                                                   Liu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      48.5%;
                                                                                                                                                                                                                                    2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                               determining
                                                                                                                                                                   ranae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6e+03;
                                                                                                                                                                             primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                               for
                                                                                                                                                                               Zaocys dhumnade,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                             can be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                    DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
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Sequence 26 BP; 6 A; 12 C;

1 G; 7 T; 0 other

Sequence

51

BP;

13 ?

10 C;

19

<u>ი</u>

9 T; 0 other;

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Qγ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                           proteins, cytochromes, kinesins, cytokines, interferons, interleukins, G-protein coupled receptors and thioesterases. The present sequence is one such oligonucleotide. The oligonucleotides and the peptides encoded by them may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate expression of the proteins listed above. Disorders that may be prevented, diagnosed and/or treated include multifactorial diseases with a genetic component, such as autoimmune diseases (e.g. rheumatoid arthritis, multiple sclerosis, diabetes, systemic lupus erythromatosus and Grave's disease), inflammation, cancer (e.g. cancers of the bladder, brain, breast, colon and kidney,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Immunosuppressive; immunostimulatory; antiinflammatory; cytostatic; neuroprotective; antimicrobial; gene therapy; vaccine; amylase; can amyloid protein; angiopoletin; apoptosis related protein; cadherin; cyclin; polymerase; oncogene; histone; kinase; colony stimulating f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human SNP oligonucleotide #3516.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  interleukin; G-protein coupled receptor; thioesterase; inflammation;
multifactorial disease; autoimmune disease; infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-JAN-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAL30308 standard; DNA;
                                                                                                                                                                                                                              The present invention relates to oligonucleotides encoding polymorphic variants of proteins related to amylases, amyloid proteins, angiopoietin, apoptosis related proteins, cadherin, cyclin, polymerase, oncogenes, histones, kinases, colony stimulating factors, complement related
                                                                                                                                                                                                                                                                                                                                                Polymorphic nucleic acids encoding e.g. amylases, oncogenes and histones, useful for diagnosing and cancer, autoimmune diseases and infections -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nervous system disease; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  complement related protein; cytochrome; kinesin; cytokine; interferon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Shimkets RA, Leach
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-DEC-1999; 99US-0173419
27-DEC-2000; 2000US-0173419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-DEC-2000; 2000WO-US35498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-JUL-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                   Claim 1; Page 2394; 4143pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (CURA-) CURAGEN CORP.
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81.8%;
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Pred. No. 3.5e+03
                                                     nervous system and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
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                                                       аn
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                                                                                                                                                                                                                                                                                                                                                                       cyclins, polymerases, treating, e.g.
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RESULT 1
AAH38492
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XX AAH3
AC 
                                                                                                                                                                             Sequences AAH37205 - AAH40944 represent PCR primers, single nucleotide CC primer extension (SNPE) primers, and the sequences of regions flanking CC sites of single nucleotide polymorphisms SNPs. The present invention CC includes kits for determining the presence or absence of a SNP, using the CC oligonucleotides of the invention. The PCR primers are used to amplify a CC SNP flanking sequence, the SNPE primer is used as a genotyping primer. CC The oligonucleotides are useful for genotyping a nucleic acid sample by CC performing a single-nucleotide primer extension reaction. The CC oligonucleotides are useful for determining the presence, absence or CC identity of a SNP and for genotyping nucleic acid samples, for e.g. to CC assess by association analysis the genotype of an individual or group of CC individuals, having a pathological phenotypic trait suspected of being CC assess by association analysis the genotype of an individual or group of CC individuals, having a pathological phenotypic traits include diseases e.g. capammaglobulinaemia, diabetes insipidus, Lesch-Nyhan syndrome, muscular CC dystrophy, familial hypercholesterolaemia, polycystic kidney disease, CC osteogenesis imperfecta and acute intermittent porphyria. Phenotypic traits also include symptoms of or susceptibility to multifactorial cCC disease of which a component is or may be genetic such as autoimmune CC diseases, including, rheumatoid arthritis, multiple sclerosis, including, rheumatoid arthritis, multiple sclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qγ
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Best Local Similarity
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                                              inflammation, cancer, nervous system diseases and infection by pathogenic microorganism. The method is also useful in forensic investigations and paternity analysis. The present sequence represents a fragment of human DNA flanking the site of a single nucleotide polymorphism.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Page 56; 83pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New genotyping oligonucleotide, useful for detecting the presence, absence or identity of single polynucleotide polymorphism in a nuc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Single nucleotide polymorphism; SNP; single nucleotide primer extension; SNPE; genotyping; agammaglobulinaemia; diabetes insipidus; cancer; Lesch-Nyhan syndrome; muscular dystrophy; familial hypercholesterolaemia; polycystic kidney disease; osteogenesis imperfecta; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Picoult-Newburg L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (ORCH-) ORCHID BIOSCIENCES INC.
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Pred. No. 3.7e+03;
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/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/BCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/backfiles1.seq:*
     DB
US-08-217-082A-4
US-08-465-485A-3
US-09-080-265-4
US-09-080-265-3
US-09-080-265-3
US-09-080-265-3
US-09-08-485A-3
US-09-08-485A-3
US-09-08-481-795B-200
US-08-481-795B-200
US-08-481-985B-7
US-08-481-985B-7
US-08-481-985B-7
US-08-264-693-6
PCT-US95-11965A-31
US-08-264-693-6
PCT-US95-11965A-31
US-08-264-750-268-9
US-08-370-476-7
US-08-488-735C-6
US-08-948-750-17
US-08-382-452D-17
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Compugen Ltd
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Sequence 4, Appli
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Sequence 16, Appli
Sequence 16, Appli
Sequence 4, Appli
Sequence 200, App
Sequence 200, App
Sequence 7, Appli
Sequence 6, Appli
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                    Sequence 13, Appl
Sequence 6, Appli
Sequence 6, Appli
Sequence 9, Appli
Sequence 17, Appl
Sequence 17, Appl
Sequence 17, Appl
Sequence 10, Appl
Sequence 10, Appl
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Sequence 81, Sequence 32,	Sequence 18, Sequence 81,	Sequence 27,	35,	Sequence 25,	Sequence 22,	Sequence 34,	Sequence 3, 2	Sequence 27,	Sequence 27,	Sequence 38,	Sequence 3/,	Sequence 38,	Sequence 37,	Sequence 38,
App1	Appl	Appl	App1	Appl	Appl	, Appl	Appli	Appl	Appl	Appl	Appl	Appl	Appl	Appl

## ALIGNMENTS

RESULT 1 US-08-217-082A-4

Sequence 4, Application US/08217082A Patent No. 5734033
GENERAL INFORMATION:
APPLICANT: Reed, John

TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES TITLE OF INVENTION: GROWTH OF CELLS EXPRESSING

FOR INHIBITING THE THE HUMAN BCL-2 GENE

NUMBER OF SEQUENCES:

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; ANTI-SENSE: US-08-217-082A-4
                                                                                          REFERENCE/DOCKET NUMBER: 333:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
TELEPAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 33 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/217,082A
FILING DATE: 24-MAR-1994
                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US 0 FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
                                       MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
ZIP: 951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: 224 Airport
CITY: San Jose
STATE: California,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, ADDRESSEE: P.C.
                                                           TOPOLOGY:
                                                                              STRANDEDNESS:
                                                                                                                                                                                                                                                    NAME: Fortney, Andrew D. REGISTRATION NUMBER: 34,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      95110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           224 Airport Parkway
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                                                           linear
                                       DNA (genomic)
                                                                         single
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US-09-080-285-4
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     Sequence 4, Application US/09080285
                                                                                                                                                             Matches
                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 4, Application US/08465485A Patent No. 5831066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
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                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (408) 436-2075 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07,
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                        REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 3335-070-55 CONT
TELECOMMUNICATION INFORMATION:
TELECHONE: (408) 436-2070
                                                                                                                                                                                                                                                                            MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                               ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Regulation of bcl-2 Gene Expression NUMBER OF SEQUENCES: 29
                                                                                                                                                   Local 33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                          TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 05-JUN-1995
CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                           STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                               TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 08/124,256 FILING DATE: 20-SEP-1993
                                                                                                         l acggggtacggaggctgggtaggtgcatctggt 33
                                                                                                                                                                                                                                                                                                                                             LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CITY: Arlington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE:
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                                                                                     ACGGGGTACGGAGGCTGGGTAGGTGCATCTGGT 33
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                                                                                                                                                                          Similarity
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                                                                                                                                                                                                                                                                                                                                         33 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2: P.C.
1755 S. Jefferson Davis Hwy., Suite 400
                                                                                                                                                            Conservative
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                                                                                                                                                                                                                                                                        DNA (genomic)
                                                                                                                                                                                                                                                                                                          single
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                                                                                                                                                                        100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US 07/840,716
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                                                                                                                                                                        Score 33; DB 2;
Pred. No. 0.00019;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 33; DB 1;
Pred. No. 0.00019;
                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                      Length 33;
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                                                                                                                                                      Indels
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                                                                                                                                                               US-08-217-082A-3/c
                                                                                                                                                                                                                                                                                                                                                                                     ; ANTI-SENSE: US-09-080-285-4
                                                                                                                                                                                    RESULT
                            Sequence 3, Application US/08217082A
Patent NO. 5734033
GENERAL INFORMATION:
APPLICANT: Reed, John
TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES
TITLE OF INVENTION: GROWTH OF CELLS EXPRESSING
NUMBER OF SEQUENCES: 17
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (408) 436-2075 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER: (
FILING DATE: 20-SEP-
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA: APPLICATION NUMBER: US,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/465,485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 0
FILING DATE: 21-FEB-1992
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 ADDRESSEE:
                 ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Fortney, Andrew D. REGISTRATION NUMBER: 34,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: 1755 S. CITY: Arlington STATE: Virginia
                                                                                                                                                                                                                                                     1 acggggtacggaggctgggtaggtgcatctggt 33
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE
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ZIP: 22202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: OBLON, SPIVAK, McCLELLAND, ADDRESSEE: P.C.
                                                                                                                                                                                                                                   ACGGGGTACGGAGGCTGGGTAGGTGCATCTGGT 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nucleic acid
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                                                                                                                                                                                                                                                                                                      Conservative
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P.C.
            OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT
                                                                                                                                                                                                                                                                                                                                                                                                                      DNA (genomic)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-SEP-1993
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Pred. No. 0.00019;
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                                                                FOR INHIBITING THE THE HUMAN BCL-2 GEN
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; ANTI-SENSE: US-08-217-082A-3
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/840,716
APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/288,692
FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                        Sequence 3, Application US/08465485A Patent No. 5831066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE: Floppy disk
COMPUTER: LBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE:
DESCRIPTION:
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SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/465,485A
FILING DATE: 05-JUN-1995
CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: Regulation of bcl-2 Gene Expression NUMBER OF SEQUENCES: 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
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nes 20; Conserv
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                                                                                                                                                                                                         CITY: Arlington
                                                                                                                                                                                         STATE:
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California
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                                                                                                                                                                                                                           1755 S. Jefferson Davis Hwy., Suite 400
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24-MAR-1994
                                                                                                                                                                                                                                                        OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   other nucleic acid
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US-08-465-485A-3
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Best Local Similarity
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TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 3:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: FORTBEY, Andrew D.
REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
FILING DATE: 22-DEC-1988
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/465,485
FILING DATE: 05-JUN-1995
PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FBB-1992
PRIOR APPLICATION UNMBER: US 07/288,692
APPLICATION UNMBER: US 07/288,692
FILING DATE: 22-DEC-1988
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                                                                                   FILING DATE: 20-SEP-
PRIOR APPLICATION DATA:
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STATE: Virginia
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                                                                                                                                                                                                   CLASSIFICATION:
                                                                                                                                                                                                                     FILING DATE:
                                                                                               APPLICATION NUMBER: US 08/124,256 FILING DATE: 20-SEP-1993
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1755 S. Jefferson Davis Hwy., Suite 400
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Regulation of bcl-2 Gene Expression
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Gaps

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CURRENT APPLICATION NUMBER: US/09/018,138
CURRENT FILING DATE: 1998-02-03
FEARLIER APPLICATION NUMBER: 08/890,929
NUMBER OF SEQ ID NOS: 24
SOFTWARE: FastSEQ for Windows Version 3.0
LENGTH: 40
     GENERAL INFORMATION:

APPLICANT: Sythowski, Arthur J.

TITLE OF INVENTION: PRODUCTION AND USE OF RECOMBINANT

TITLE OF INVENTION: PROTEIN MULTIMERS WITH INCREASED BIOLOGICAL ACTIVITY

FILE REFERENCE: BIH97-05

CURRENT APPLICATION NUMBER: US/08/890,929A

CURRENT APPLICATION NUMBER: US/08/890,929A

NUMBER OF SEQ ID NOS: 9

SOFFWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                US-08-890-929-4/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; TYPE: DNA
; ORGANISM: Human
US-09-018-138-16
                                                                                                                                                                                         Sequence 4, Application US/08890929A
Patent No. 6242570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-018-138-16/c

: Sequence 16, Application US/09018138

: Patent No. 6187564
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Best Local Similarity
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APPLICANT: Sytkowski, Arthur J.
TITLE OF INVENTION: Production and Use of Recombinant
TITLE OF INVENTION: Protein Multimers With Altered Biological Activity
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LENGTH: 40
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                           32 ACAGGGGACAGAGCCGGCGGTGGTGGATCTGG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE:
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LENGTH: 20 base pairs
TYPE: nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                              23;
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                                                                                                                                                                                                                                                                                                                                                                          Conservative
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                                                                                                                                                                                                                                                                                                                                                         53.3%; Score 17.6; DB 4; Length 40; 71.9%; Pred. No. 1.3e+02; ative 0; Mismatches 9; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60.6%; Score 20; DB
100.0%; Pred. No. 16;
tive 0; Mismatches
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RESULT 10

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US-08-508-448C-4
                                                                   Matches
                                                                           Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO:
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                                                                                                                                                  MOLECULE TYPE: cDNA to m
ORIGINAL SOURCE:
ORGANISM: Homo sapiens
TISSUE TYPE: trachea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 59 bases
                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-8850
                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: Warren M. Cheek, J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Wordperfect 5.1
CURRENT APPLICATION DATA:
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ORGANISM: Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: KAZUYOShi YAMAOKA et al.
TITLE OF INVENTION: NUCLEIC ACID SEQUENCE ENCODING
TITLE OF INVENTION: TRYPSIN-LIKE ENZYME AND PROCESS FOR PRODUCING THE ENZYME
NUMBER OF SEQUENCES: 25
8 GGGGCACGGAGGCTGAGGAGG 28
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                3 ggggtacggaggctgggtagg 23
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                                                                                                                                                                                                                                                TYPE:
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                                                                                                                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                                                                                                             TELEX:
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                                                                                                                                                                                                                                                                                                                                                                                 REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/
FILING DATE: July 28, 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Washington
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 acggggtacggaggctgggtaggtgcatctgg 32
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                                                                                                                                                                                                                                           nucleic acid
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                                                              Conservative
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                                                                                                                                                                                                                 linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IBM Compatible
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                                                                                                                                                                                                cDNA to mRNA
                                                                                                                                                                                                                           double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Diskette,
                                                  49.1%; Score 16.2; DB 1; Length 59; 85.7%; Pred. No. 4.7e+02; rative 0; Mismatches 3; Indels
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US-08-411-795B-200
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                                                                                                                                                                                                                                                                            US-08-411-795B-200
                                                                          RESULT 11
US-08-469-319A-200
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           Sequence 200, Application US/08469319A PATENT NO. 5817486 GENERAL INFORMATION: APPLICANT: ADVANTS, Mark A.
                                                                                                                                                                                                                Query Match
Best Local (
                                                                                                                                                                                                  Matches
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APPLICANT:
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APPLICANT:
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INFORMATION FOR SEQ ID NO: 200:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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ADDRESSEE: Dennis A. Bennett, G.D. Searle & Co.
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FILING DATE: 24-NOV-1992
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 34,547
REFERENCE/DOCKET NUMBER: C2
TELECOMMUNICATION INFORMATION:
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PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                          MOLECULE TYPE: DNA (synthetic)
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APPLICANT:
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                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear
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                                                                                                                                     2 AGGTTGTTCGGGTCCAGGGAAGGTGCAGGTGGT 34
                                                                                                                                                     1 acggggtacggaggctgggtaggtgcatctggt 33
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Paik, Kumnan
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Klein, Barbara K.
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Braford-Goldberg, Sarah R.
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                                                                                                                                                                                                                                                                                                                                                         36 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             USA
                                                                                                                                                                                                                                                                                                                                                                                                    (708)470-6501
(708)470-6881
 Bauer, S. C.
                                                                                                                                                                                                   Conservative
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22-NOV-1993
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                                                                                                                                                                                                                    46.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       C2713/2
                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                     Score 15.4; DB 1; Length 36; Pred. No. 9.2e+02;
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ÚS-08-469-319A-200
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APPLICANT:
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INFORMATION FOR SEQ ID NO: 200:
                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Thomas, John W.
TITLE OF INVENTION: Interleukin-3
TITLE OF INVENTION: Polypeptides
NUMBER OF SEQUENCES: 415
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FILING DATE: 24-NOV-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/1119
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PRIOR APPLICATION DATA:
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TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 22-NOV-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 36 base pairs
                                                                              APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: DNA (synthetic)
                                TITLE OF INVENTION: An Altered PITLE OF INVENTION: Complex (MHC) TITLE OF INVENTION: Determinant
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CORRESPONDENCE ADDRESS:
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              NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY:
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Paik, Kumnan
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Klein, Barbara K.
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(708)470-6881
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                                                                              Abastado, Jean-Pierre
Kourilsky, Philippe
                                                                                                                  Mottez, Estelle
                                                                                                                                                                                                                                                                                                                       Conservative
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66.7%;
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                                                  Complex(MHC) Determinant and Methods for Using the
                                                                  An Altered Major Histocompatibility
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 Mismatches

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US-08-481-985B-7
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                                                                                                                                                                                                                                                                                                                                                  Sequence 7, Application US/084B1985B Patent No. 6011146
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                  APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 57 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: 202-408-4400 INFORMATION FOR SEQ ID NO: 7:
                                                                                                                                                                                                            APPLICANT: Abastado, Jean-Pierre APPLICANT: Kourilsky, Phillipe TITLE OF INVENTION: Altered Major TITLE OF INVENTION: NUMBER OF SEQUENCES: 148
CORRESPONDENCE ADDRESS:
                                                                                                                                    ADDRESSEE: Dunner
STREET: 1300 I Sta
CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE:
                                                                                                       STATE: D.C.
ZIP: 20005-3315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: 03.
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-408-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
NAME: Potter, Jane E. R.
REGISTRATION NUMBER: 33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/484,905
FILLING DATE: 07-JUNE-1995
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/801,818
FILLING DATE: 05-DEC-1991
                                                                                                                                                                                  ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 ggggtacggaggctgggtaggtgcatctggt 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE: D.C.
TIP: 20005-3315
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 0 FILING DATE: 15-NOV-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS-/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Finnegan, Henderson, Farabow, Garrett &
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                                                                                                                                           2: Dunner
1300 I Street, N.W., Suite 700
                                                                                                                                                                                                                                                                                                               Mottez, Estelle
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67.7%;
                                                                                                                                                                                                                                                    Altered Major Histocompatibility Complex
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 15; DB 2;
Pred. No. 1.3e+03;
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US-08-370-476-7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 7, Applic Patent No. 6153408
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: 202-408-400
TELEFAX: 202-408-4400
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
PRIOR APPLICATION DATA:
                                                                     CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                   CURRENT APPLICATION DATA:
                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 1: CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
                                                                                                                                                                                                               STATE: D.C.
STATE: D.C.
TIP: 20005-3315
                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
              APPLICATION NUMBER: US OFFILING DATE: 06-JUN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: DNA (genomic)
                                        APPLICATION NUMBER: US 0 FILING DATE: 07-SEP-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 034
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-408-4000
                                                                                                                                                  SOFTWARE:
                                                                                                                                                                COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                       FILING DATE:
                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                        CITY: Washington
                                                                                                                                                                                                                                                                           STREET:
                                                                                                                                                                                                                                                                                       ADDRESSEE: Finneg
ADDRESSEE: Dunner
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PRIOR APPLICATION DATA:
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PRIOR APPLICATION DATA:
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Local Similarity 67.7%;
hes 21; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9 GGGGATCGGATCCGGAGGCGGTGGATCCGGT 39
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Meyers, Kenneth
REGISTRATION NUMBER: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/0 FILING DATE: 07-JUN-1995
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application US/08370476
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Abastado, Jean-Pierre
Kourilsky, Phillipe
Lone, Yu-Chun
Ojcius, David
                                                                                                                                                                                                                                                                     1300 I Street, N.W., Suite 700
                                                                                                                                           PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         57 base pairs
                                                                                                                                                                                                                                                                                                                                                                             Casrouge, Armanda
                                                                                                                                                                                                                                                                                             Finnegan, Henderson, Farabow, Garrett &
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                                                                                                                                                                                                                                                                                                                                                         Altered Major Histocompatibility Complex
                                                                                                                                                                                                                                                                                                                                      127
                           US 08/072,787
                                                        US 08/117,575
                                                                                                                    US/08/370,476
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Pred. No. 1.3e+03;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10;
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APPLICANT: Fielding, Christopher E
APPLICANT: Fielding, Phoebe E
TITLE OF INVENTION: REGULATION OF THE CEL CYCLE BY STEROLS
FILE REFERENCE: 2500.141US1 Regulation of cell cycle
CURRENT APPLICATION NUMBER: US/09/264,693
CURRENT FILING DATE: 1999-03-09
EARLIER APPLICATION UNMBER: 60/077,351
EARLIER APPLICATION UNMBER: 60/077,351
EARLIER FILING DATE: 1998-03-09
NUMBER OF SEQ ID NOS: 10
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 6
LENGTH: 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; MOLECULE TYPE: DNA (genomic) US-08-370-476-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 15
US-09-264-693-6/c
                                                                                                                                                                                                           : FEATURE:
: OTHER INFORMATION: Description of Artificial Sequence: Probe cav-646
US-09-264-693-6
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TELEPAX: 202-408-44000
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 57 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 07/801,818
FILING DATE: 05-DEC-1991
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 07/792,473
FILING DATE: 15-NOV-1991
ATTORNEY/AGENT INFORMATION:
NAME: Meyers, Kenneth J.
REGISTRATION NUMBER: 05243.0001-01000
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-408-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ouery Match 45.5%; Score 15; DB 3; Length 57; Best Local Similarity 67.7%; Pred. No. 1.3e+03; Matches 21; Conservative 0; Mismatches 10; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 6, Application US/09264693 Patent No. 6261760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                    Query Match 44.8%; Score 14.8; DB 4; Length 35; Best Local Similarity 73.1%; Pred. No. 1.6e+03; Matches 19; Conservative 0; Mismatches 7; Indels
                                                                                                                                                                                                                                                                             TYPE: DNA ORGANISM: Artificial Sequence
  35 AAGGAATCTGTGTGGGTGCCTGTGGT 10
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                        8 acggaggctgggtaggtgcatctggt 33
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Search completed: June 28, 2002, 22:16:41 Job time: 8267 sec

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Minimum DB
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Perfect score:
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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1 acaaaggcatcctgo
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Maximum Match 100%
Listing first 45 summaries
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Gapop 10.0 , Gapext 1.0
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Copyright (c) 1993 - 2000 Comp
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em_pat:*
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em_un:*
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em_or:*
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AX041996 Sequence
S60091 dystrophin
E36783 Novel phoH.
E12037 PCR primer
AR109662 Sequence
AR109714 Sequence
AR109714 Sequence
AX129397 Sequence
AX129397 Sequence
112125 Sequence 30
115448 Sequence 26
141295 Sequence 30
AR160598 Sequence 31
AR16498 Sequence 34
AR16498 Sequence 34
AR16498 Sequence 34 AX008541 Sequence AX201462 Sequence A09142 Nucleotide A0947 DNA fragmen A09482 DNA fragmen AX298468 Sequence E49892 Substrate f X58759 Human mRNA 187862 Sequence 15 AF000097 Homo sapi L06877 Human rearr AR052607 Sequence 196086 Sequence 5 AR052608 Sequence 196087 Sequence 6 AR083328 Sequence AX249197 Sequence A50697 Sequence 36 AR083328 Sequence AX036029 Sequence AX008541 Sequence AR109665 AR109666 Sequence AR109713 Sequence Sequence Sequence

# ALIGNMENTS

BASE COUNT ORIGIN REFERENCE AUTHORS KEYWORDS SOURCE ORGANISM ACCESSION RESULT AR052607 LOCUS FEATURES source VERSION JOURNAL TITLE Regulation of bcl-2 gene expression Patent: US 5831066-A 5 03-NOV-1998; Location/Qualifiers 1 (bases 1 to Reed, J.C. Unknown Unknown. Sequence 5 from patent AR052607 Unclassified. AR052607.1 GI:5975971 AR052607 ы /organism="unknown"
5 c 5 g 20) SD 20 bp 5831066. 4 DNA linear PAT 29-SEP-1999

Result No.

Score

Query Match Length

DB ID

Description

Query Match Best Local Similarity

100.0%;

Score Pred.

No. 5.7;

6

Length

20;

SUMMARIES

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DEFINITION
ACCESSION
VERSION
                                                                                                                                                                   BASE COUNT
ORIGIN
                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
196086
LOCUS
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JOURNAL
FEATURES
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AUTHORS
                                     RESULT
196087/c
                                                                                                                                                                                                          JOURNAL
FEATURES
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Sequence 6 from patent US
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                                                1 (bases 1 to 27)
Hinuma,S., Hosoya,M., Fujii,R., Ohtaki,T., Fukusumi,S. and Ohgi,K.
G-protein coupled receptor protein and a DNA encoding the receptor
Patent: US 6114139-A 90 05-SEP-2000;
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Hinuma,S., Hosoya,M., Fujii,R., Ohtaki,T., Fukusumi,S.
G-protein coupled receptor protein and a DNA encoding t
Patent: US 6114139-A 87 05-SEP-2000;
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Hinuma, S., Hosoya, M., Fujii, R., Ohtaki, T., Fukusumi, S. and G-protein coupled receptor protein and a DNA encoding the relation of the state of the state
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88.2%;
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                                                                                                   Score 13.4; DB 6;
Pred. No. 2.7e+04;
0; Mismatches 1;
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AUTHORS
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AR109713/c
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AUTHORS
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A15337
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JOURNAL
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Best Local Similarity
Matches 14; Conserv
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Best Local Similarity 83:
Matches 15; Conservative
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A15337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 (bases 1 to 30)
Hinuma, S., Hosoya, M., Fujii, R., Ohtaki, T., Fukusumi, S. and Ohgi, K.
G-protein coupled receptor protein and a DNA encoding the receptor
Patent: US 6114139-A 137 05-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unknown
                                                                                                                                                                                                                                                                                                           1 (bases 1 to 27)
Kingsman, A.J. and Kingsman, S.M.
                                                                                                                                                                                                                                                                                                                                            synthetic construct
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synthetic construct.
synthetic construct
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                                                                                                                                                                                                                                                                                       Patent: EP 0073635-A 5
                                                                                                                                                                                                                                                                                                  Expression vectors
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/db_xref="taxon:32630"
5 c 8 g 4 t
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1. .27
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11 c 6 g
                                                    from Patent W00065067
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93.3%;
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Pred. No. 2.7e+04;
0; Mismatches 1
                                                                                                                                                           Score 13.2; DB 6;
Pred. No. 3.5e+04;
0; Mismatches 3
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REMARK
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1 (bases 1 to 70)
Narita, N., Nishio, H., Kitoh, Y., Ishikawa, Y., Ishikawa, Y., Minami, R., Nakamura, H. and Matsuo, M.
Insertion of a 5' truncated L1 element into the 3' end of exon 44 of the dystrophin gene resulted in skipping of the exon during splicing in a case of Duchenne muscular dystrophy J. Clin. Invest. 91 (5), 1862-1867 (1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               70 bp mRNA linear PRI dystrophin {exon 43 directly spliced to exon 45} [human, lymphocytes, mRNA Partial Mutant, 70 nt].
                                                                                                                                                                                                                                                                                                                                                                                                          GenBank staff at the National Library of Medicine created this entry [NCBI gibbsq 131496] from the original journal article.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 $60091.1 GI:300170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent: WO 0065067-A 26 02-NOV-2000;
The University of Washington (US)
Location/Qualifiers
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Nelson, P.S., Hood, L. and Lin, B.
                                                                               Similarity
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                                                               Conservative
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                                                                                                                                                             /protein_id="AAD13910.1"
/db_xref="GI:4261610"
/translation="DROGNSRMALGSGKLLSEH"
/translation="21 g 12 t
                                                                                                                                                                                                                                /gene="dystrophin"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                               /db_xref="taxon:9606"
                                                                                                                                                                                                                                                               /partial
                                                                                                                                                                                                                                                                                               /gene="dystrophin"
                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note="PRC Primer"
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/db_xref="taxon:32630"
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83.3%;
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                                                                            Score 13.2; DB 9;
Pred. No. 3.4e+04;
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Pred. No. 3.5e+04;
0; Mismatches 3;
                                                                                               DB 9;
                                                                                           Length 70;
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Patent: JP 1999253175-A 3 21-SEP-1999;

SMITHKLINE BEECHAM CORP
OS Unidentified
PN JP 1999253175-A/3
PD 21-SEP-1999
PF 18-SEP-1999 JP 1998303154
PR 18-SEP-1999 JP 1998303154
PR 18-SEP-1997 US 08/932978
PI MAGUDAKENA SARAKAIN, JAMES RAYMOND BURAUN
PC C12N15/09, A61K31/00, A61K38/00, A61K39/395,C12P21/02,C12Q1
PC G01N33/15,G01N33/50,G01N33/566,G01N33/58//(C12N15/09, PC A61K37/02,(C12N15/00, C12R1:46), PC G12N15/00, C12R1:46)
CC Strandedness: Single;
FH Key
FT Source
FT Source
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AUTHORS
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ID E12037
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Best Local Similarity
Tsuruo T., Kiyomiya H.;
"TYROSINE DEPHOSPHORYLATION ENZYME AND GENE CODING
Patent number JP1996242852-A/5, 24-SEP-1996.
                                                                                                                 JP 1996242852-A/5
                                                                             unclassified.
                                                                                                                                      PCR primer for detecting human tyrosine phosphatase, PTP-U2
                                                                                                                                                                 08-OCT-1997
02-SEP-2000
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E36783
E36783.1 GI:13022751
JP 199253175-A/3.
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                                                                                                                                                                                                                                                     standard; DNA; UNC;
                                                                                                                                                                 (Rel.
                                                                                                                                                                                                                                                                                                                                                                  Conservative
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18-SEP-1997 US 08/932978
MAGUDARENA SARAKAIN, JAMES RAYMOND BURAUN
C12N15/09, A61K31/00, A61K38/00, A61K39/395, C12P21/02, C12Q1/68,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism='Unidentified'.
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6 c 4 g
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65,
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87.5%;
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Pred. No. 5.9e+04;
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               FOR THE ENZYME";
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MITSUBISHI CHEM CORP.

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DEFINITION
ACCESSION
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KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                 RESULT 15
AR109662/c
LOCUS
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Search completed: June 28, 2002, 22:10:56 Job time: 8347 sec
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                                                                                                                                                                                                                                                                                                                                                   17 AAAGTATCCTGCAGTT 2
                                                25 ACAAAGGCAGCCAGCA 10
                                                                                                                                                                                                                                                                                                                                                           4 aaggcatcctgcagtt 19
                                                          1 acaaaggcatcctgca 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            strandedness: Single;
topology: Linear;
hypothetical: No;
anti-sense: Yes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             None
Artificial sequences.
JP 1996242852-A/5
24-SEP-1996
21-SEP-1996
10 -MAR-1995 JP 1995051374
TSURUO TAKASHI, KIYOMIYA HIROYUKI
C12N1/12,C12N1/21,C12N15/09,(C12N19/12,C12R1:19),
C12R1:91),
C12R1:91),
C12R1:91);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Key
                                                                                                                                                                                                                                                                                                                                                                                        14; Conservative
                                                                                                                                                                            1 (bases 1 to 27)
Hinuma,S., Hosoya,M., Fujii,R., Ohtaki,T., Fukusumi,S. and Ohgi,K.
G-protein coupled receptor protein and a DNA encoding the receptor Patent: US 6114199-A 86 05-SEP-2000;
Location/Qualifiers
                                                                                                                                                                                                                                                                    AR109662 27 bp
Sequence 86 from patent US 6114139.
AR109662 GI:12825938
                                                                                                                                                                                                                             Unknown.
Unclassified.
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/db_xref="taxon:32644"
/organism="unidentified"
                                                                                                                                                /organism="unknown"
8 c 7 g
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                                                                                                                                                                                                                                                                                                                                                                                                 64.0%;
                                                                                      64.0%; Score 12.8; DB 6;
87.5%; Pred. No. 5.9e+04;
tive 0; Mismatches 2;
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Maximum DB
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! /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1980.DAT:*

2: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1981.DAT:*

3: /SIDS1/gcgdata/geneseg/geneseqn-embl/NA1983.DAT:*

4: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1983.DAT:*

5: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1984.DAT:*

6: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1985.DAT:*

6: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1985.DAT:*

7: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1987.DAT:*

8: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1987.DAT:*
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221:
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Listing first 45 summaries
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Gapop 10.0 , Gapext 1.0
// SIDS1/gcgdata/geneseq/geneseqn embl/NA1988.DAT: *
10. / SIDS1/gcgdata/geneseq/geneseqn embl/NA1989.DAT: *
11. / SIDS1/gcgdata/geneseq/geneseqn embl/NA1989.DAT: *
12. / SIDS1/gcgdata/geneseq/geneseqn embl/NA1990.DAT: *
13. / SIDS1/gcgdata/geneseq/geneseqn embl/NA1991.DAT: *
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19. / SIDS1/gcgdata/geneseq/geneseqn embl/NA1999.DAT: *
22. / SIDS1/gcgdata/geneseq/geneseqn embl/NA20010.DAT: *
23. / SIDS1/gcgdata/geneseq/geneseqn embl/NA2001B.DAT: *
23. / SIDS1/gcgdata/geneseq/geneseqn embl/NA2001A.DAT: *
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Query Match Length DB ID Match Length DB AV19655 100.0 20 19 AAV19655 100.0 36 16 AAQ86648
D AAV19655 AAQ86648
Description Human bcl-2 antise Bcl-2 splice accep

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AAV13217 AAV13217 AAX58079 AAX597492 AAS97492 AAC83660 AAQ45900	AA913800 AAD07160 AAF74954 AAG897501 AAC89375 AAQ06062 AAH75621	ABI91327 AAQ22070 AAQ24348 AAX81807	AA03139 AA131007 AAH31394 AAW77660 AAW24200 AAW24200 AAF44587 ABI91326	AAV77691 AAV65904 AAD26507 AAD00976 AAC83346 AAC83346 AAT25337 AAL29366 AAT48483 AAX19906 AAX19906 AAX19906
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## ALIGNMENTS

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RESULT
AAV19655
21-FEB-1992;
22-DEC-1988;
24-MAR-1994;
                                                                                                                                                                       Human bcl-2 antisense oligonucleotide 3.
                                                                                                                                                                                                                   AAV19655 standard; DNA; 20 BP.
       WPI; 1998-229881/20
                                                                                              31-MAR-1998.
                                                                                                            US5734033-A.
                                                                                                                                   Synthetic.
                                                                                                                                                 cancer; ss.
                                                                                                                                                        Antisense oligonucleotide; bcl-2 gene; lymphoma; leukaemia; human;
                                                                                                                                                                                     12-JUN-1998
                                                                                                                                                                                                     AAV19655;
                     Reed J;
                                    (UYPE-) UNIV
                                                                               24-MAR-1994;
                                                                                                                           Homo sapiens
                                    PENNSYLVANIA
                                                                                                                                                                                     (first entry)
                                                  92US-0840716.
88US-0288692.
94US-0217082.
                                                                               94US-0288692
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RESULT 2
AAO86648/c
ID AAO866
XX BC1-2
XX AATICO
KW Leukem
KW SS.
XX WO9508
XX WO9508
XX WO9508
XX CO-SEP
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                                                                               thereby inducing programmed corresp. bcl-2 sense splice
                                                                                               The antisense oligonucleotide SA-AS (AAQ86647) is complementary to a portion of the splice acceptor site of the pre-mRNA coding strand of the human bol-2 gene. It reduces the expression of bol-2 gene product, thereby inducing programmed cell death of certain cancer cells. The
     Sequence
                                                       use as a
                                                                                                                                                                                                                                   Disclosure; Page 13; 108pp; English.
                                                                                                                                                                                                                                                                                     of human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic
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                                                                                                                                                                                                                                                                                                                Anti-code oligomers which bind to bcl-2 mRNA -
                                                                                                                                                                                                                                                                                                                                                                                                                    Reed JC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO9508350-A
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                                                                            acceptor site region
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Pred. No.
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Query Match

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Length 36;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
                                                                                                                                                                                                                                     This is a human bcl-2 oligonucleotide based on which an antisense oligonucleotide complementary to the splice acceptor site of the human bcl-2 mRNA can be constructed. Bcl-2 antisense oligonucleotides straddle strategic sites such as the translation initiation site, donor and acceptor splicing sites, or sites for transportation or degradation.
                                                                                                                                                                                                                                                                                                                                                        WPI;
        AAC63894
                                                                                                                                                                                                         Blocking translation at such strategic sites prevents the formation of a functional bcl-2 gene product. These oligonucleotides may be used for treating cancers associated with high levels of bcl-2 gene expression,
                                                                                                                                                                                                                                                                                                     Disclosure; Columns 3-4; 21pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAV19656
                              AAC63894 standard;
                                                                                                                                                                            Sequence
                                                                                                                                                                                                especially lymphomas and some
                                                                                                                                                                                                                                                                                                                         Anti-sense oligo:nucleotide(s) complementary to BCL-2 mRNA for treating cancers, e.g. lymphoma(s) and some leukaemia(s)
                                                                                                                                                                                                                                                                                                                                                                                                                      24-MAR-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                               21-FEB-1992;
22-DEC-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               24-MAR-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US5734033-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Antisense oligonucleotide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human bcl-2 oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAV19656;
                                                                                                                                                                                                                                                                                                                                                                                                 (UYPE-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-JUN-1998
                                                                                 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24
                                                                                                                                    Local
                                                                                            1 acaaaggcatcctgcagttg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ш
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACAAAGGCATCCTGCAGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  acaaaggcatcctgcagttg
                                                                                 ACAAAGGCATCCTGCAGTTG
                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                  VINU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ss.
                                                                                                                                                                              36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard; DNA; 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                              BP;
                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                  PENNSYLVANIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first
                                                                                                                                                                                                                                                                                                                                                                                                                     92US-0840716.
88US-0288692.
94US-0217082.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               94US-0288692
                                                                                                                                                                              7
                                                                                                                                                                            A;
                              DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           entry)
                                                                                                                                   100.0%;
                                                                                                                                                                            11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
                              40
                                                                                                                                                                            c;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                  G
                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                              10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  bc1-2 gene; lymphoma; leukaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ВP
                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                   Score 20;
Pred. No.
                                                                                                                                                                            G;
                                                                                                                                                                                                  leukaemias.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No.
                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                              8 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.5;
                                                                                                                                              DB 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                          0,
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ARESULT 5
AAL32869/C
ID AAL328
XX
AC AAL328
XX
DT 24-JAN
XX
DT 24-JAN
XX
DE Human
XX
Immunc
KW Immunc
KW Immunc
KW amyloi
KW amyloi
KW cyclli
                                                                                                                                                                                                                                                                                                                                                                                                                        ρy
                                                                                                                                                                                                                                                                      ₽
                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to a method for controlling the activity of an immunologically functional molecule (e.g., an antibody) where the control is effected by the presence or absence of fucose bound to an N-acetylglucosamine residue at the reducing end of the sugar chain on the immunologically functional molecule. The invention also relates to methods for the diagnosis, prevention or treatment of diseases which involve the modified immunologically functional molecule, and agents which stimulate the activity of an immunologically functional molecule. The methods of the invention are used for the diagnosis, treatment and prevention of a broad range of diseases including cancer, circulatory disease, viral or bacterial infection, allergy, autoimmune disease and inflammation. The present sequence represents a Chinese hamster/fat beta-actin PCR primer used in an exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Control of activity of antibodies and other immunologically functional molecules by addition or removal of fucose from sugar chain for diagnosis and treatment of cancer, allergy and other diseases .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200061739-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              glycosylation;
Immunosuppressive; immunostimulatory; antiinflammatory; cytostatic; neuroprotective; antimicrobial; gene therapy; vaccine; amylase; cancer; amyloid protein; angiopoletin; apoptosis related protein; cadherin; cyclin; polymerase; oncogene; histone; kinase; colony stimulating facto
                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 40 BP; 10 A; 5 C; 16 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Imabeppu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hanai N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            07-APR-2000; 2000WO-JP02260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cricetulus griseus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Immunologically functional molecule; immune system;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-FEB-2001
                                                                                      Human
                                                                                                                                                                                    AAL32869 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (KYOW ) KYOWA HAKKO KOGYO KK
                                                                                                                                                                                                                                                                      22
                                                                                                                                                                                                                                                                       CAAATGCTTCCTGCAGTT
                                                                                                                                                                                                                                                                                                     caaaggcatcctgcagtt 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000-665129/64.
                                                                                      SNP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               infection;
                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hamster/rat beta-actin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ß
                                                                                     oligonucleotide #6077.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nakamura
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Page 74; 81pp; Japanese
                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kanda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99JP-0103158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             fucose; N-acetylglucosamine; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ucose; N-acetylglucosamine; cancer; circulatory disease;
bacterial infection; allergy; autoimmune disease;
tibody; Chinese hamster; rat; beta-actin PCR primer; ss.
                                                                                                                                                                                    DNA;
                                                                                                                                                                                                                                                                                                                                                      74.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Shoji E,
Yamane N,
                                                                                                                                                                                    51
                                                                                                                                                                                    BP.
                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                    Score 14.8;
Pred. No. 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PCR primer,
                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                        9 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yamasaki M,
Anazawa H;
                                                                                                                                                                                                                                                                                                                                 8; PE
5.9e+02;
2;
 kinase; colony stimulating factor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO:6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Uchida
                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                immunomodulation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ~
                                                                                                                                                                                                                                                                                                                                                                       40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PCR primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shinkawa T;
                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                      0;
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В
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                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                  variants of proteins related to amylases, amyloid proteins, angiopoietin, apoptosis related proteins, cadherin, cyclin, polymerase, oncogenes, histones, kinases, colony stimulating factors, complement related proteins, cytochromes, kinesins, cytokines, interferons, interleukins, c-protein coupled receptors and thioesterases. The present sequence is one such oligonucleotide. The oligonucleotides and the peptides encoded by them may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate expression of the proteins listed above. Disorders that may be prevented, diagnosed and/or treated include multifactorial diseases with a genetic component, such as autoimmune diseases (e.g. rheumatoid arthritis, multiple sclerosis, diabetes, systemic lupus erythromatosus and Grave's disease), inflammation, cancer (e.g. cancers of the bladder, brain, breast, colon and kidney, leukaenia), diseases of the nervous system and an infection of pathogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            complement related protein; cytochrome; kinesin; cytokine; interferon; interleukin; G-protein coupled receptor; thioesterase; inflammation; multifactorial disease; autoimmune disease; infection; nervous system disease; ss.
                                                          MAGE-A3; YopE-130; Yersinia;
cytotoxic T lymphocyte; CTL;
                                                                                                     Upstream primer for MAGE-A3
                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; Page 3129; 4143pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cancer, autoimmune diseases and infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Polymorphic nucleic acids encoding e.g. amylases, oncogenes and histones, useful for diagnosing and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              28-DEC-1999;
27-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-JUL-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200147944-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                     10-AUG-2000
                                                                                                                                                                 AAA09234;
                                                                                                                                                                                               AAA09234 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-DEC-2000;
                                                                                                                                                                                                                                                                       45 CAAAGGCATCCTGCTCTT
                                                                                                                                                                                                                                                                                                     N
                                                                                                                                                                                                                           σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  present
                                                                                                                                                                                                                                                                                                   caaaggcatcctgcagtt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001-465210/50
                                                                                                                                                                                                                                                                                                                                  16;
                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RA,
                                                                                                                                                                                                                                                                                                                                                                                                            BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  invention relates to oligonucleotides
                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99US-0173419
2000US-0173419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US35498
                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                           11 A; 10 C;
                                                                                                                                                                                                                                                                                                                                               74.0%;
88.9%;
                                                                                                                                                                                               30
                                                                                                                                                                                                                                                                       28
                                                                                                                                                                                                                                                                                                     19
                                                                                                                                                                                                                                                                                                                                                                                                            12
                                                                                                     (residues 1-199) cDNA
                                                                                                                                                                                                                                                                                                                                 0;
                                                           complex;
                                                                         recombinant; antigen; epitope;
                                                                                                                                                                                                                                                                                                                                               Score 14.8; DB 2:
Pred. No. 6.1e+02
                                                                                                                                                                                                                                                                                                                                                                                                            ç.
                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                            18 T;
                                                           human leukocyte antigen; HLA;
                                                                                                                                                                                                                                                                                                                                                                                                            0 other;
                                                                                                                                                                                                                                                                                                                                                               22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cyclins, polymerases, treating, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               encoding polymorphic
                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                               51;
                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                  Gaps
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Homo sapiens

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RESULT 7
    EXEX DXXXX
                                                                                                                                                                                          밁
                                                                                                                                                                                                                 QY
                                                                                                                                                                                                                                                                                                                    CC AAA09228-35 are primers to amplify MAGE cDNA. The MAGE cDNA was linked CC in frame to a sequence encoding a truncated YopE (YopE 1-130). Vectors CC containing this sequence were used to generate recombinant Yersina. CC A novel method of isolation of cytotoxic T-lymphocytes (CTL) clones CC comprises successive steps of stimulation and testing of lymphocytes with antigen presenting cells (APCs) which present antigens derived CC from different expression systems. The CTL clones isolated recognize specific antigenic peptides of proteins, preferably of the MAGE family. CC The APC is autologous and each expression systems is different from at least one of the other expression systems, therefore isolating a CC cytotoxic T cell clone specific for the protein. The method can also be CC used to identify an antigenic peptide epitope. Isolated CTL clones specific for a peptide/human leukocyte antigen (HLA) complex are CC claimed. The CTL cells specific for the complexes, peptides or cells which present the complexes on the cell surface are useful for treating contributions characterized by abnormal expression of the
                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                          PCR primer used to amplify the yeast FUS1 promoter sequence.
                                                           13-MAR-2000
                                                                                       AAZ36900;
                                                                                                                  AAZ36900 standard; DNA; 41 BP
                                                                                                                                                                                                                                                                                                                  Sequence 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 1; Page 38; 99pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Isolation of cytotoxic T-lymphocytes clones by successive steps of stimulation and testing of lymphocytes with antigen presenting cel which present antigens derived from different expression systems
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI;
                                                                                                                                                                                                                                                                                                                                                            pathological conditions characterized by abnormal expression of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Schultz E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Stroobant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chaux P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-OCT-1998;
09-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200020445-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRO/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TRAV/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHAU/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORN/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DUFF/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEMO/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LURQ/)
                                                                                                                                                                                        w
                                                                                                                                                                                                                    N
                                                                                                                                                                                     cagagtcatcctgcagatg 21
                                                                                                                                                                                                     caaaggcatcctgcagttg 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000-303739/26.
                                                                                                                                                                                                                                                 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TRAVERSARI C.
STROOBANT V.
CORNELIS G R.
BOON-FALLEUR T.
VAN DER BRUGGEN I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEMOTTE N.
DUFFOUR M.
LURQUIN C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LUITEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         E, Warnier G;
    of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Luiten R, Demot
V, Cornelis GR,
                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                  BP; 7 A; 9 C; 7
  G
                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       , 4 p.
protein signalling; AGS; ras-related G protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0165863
99US-0289350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99WO-IB01664
                                                                                                                                                                                                                                                            71.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Demotte
                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                    G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Boon-Falleur T,
                                                                                                                                                                                                                                            Score 14.2; DB 21;
Pred. No. 1.1e+03;
D; Mismatches 3;
                                                                                                                                                                                                                                                                                                                    7 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lurquin
Van Der
                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bruggen
                                                                                                                                                                                                                                                                          30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Traversari C;
ggen P;
                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cells
                                                                                                                                                                                                                                           Gaps
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AAV36324/c
PN XX
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                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTP hydrolysis activity. AGS stimulates G protein activity, G protein-coupled signal transduction and the pheromone response pathway in a receptor-independent manner. The AGS protein also shows G-gamma selectivity, as measured by growth assays in yeast expressing various mammalian G-gamma constructs, and tissue-specific expression, as measured by Northern blot analysis. The AGS protein can be used to screen for compounds that modulate cellular signal transduction. The protein is used to treat disorders characterized by an aberrant AGS protein activity or AGS nucleic acid expression.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           strains for use in a screening assay to identify a protein which is an activator of G protein signalling (AGS protein). The AGS CDNA sequence was isolated from a human liver CDNA library. The AGS protein exhibits homology to ras-related G proteins, and contains alterations in conserved amino acids consistent with a deficiency in
                                                                       GABA receptor; gamma-amino butyric appetite; cognition; probe; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A new activator of {\tt G} protein signalling used to treat disorders characterized by an aberrant AGS protein activity -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTP hydrolysis; G protein activity; pheromone response pathway; G protein-coupled signal transduction; G-gamma selectivity; cellular signal transduction; FUS1 promoter; PCR primer; ss.
                           Homo sapiens.
                                                                                                                    Human GABA receptor epsilon subunit DNA probe 1.
                                                                                                                                                   12-OCT-1998
                                                                                                                                                                                  AAV36324;
                                                                                                                                                                                                              AAV36324 standard; DNA; 45
                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 41 BP; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PCR primers AAZ36900-01 were used to amplify the yeast FUS1 promoter sequence. The amplified fragment was used to construct host yeast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2000-072337/06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cismowski M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-MAY-1998;
07-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                W09958670-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Saccharomyces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (CADU-) CADUS PHARM CORP
                                                                                                                                                                                                                                                                                         36 AAAAGGGCATCCTGCAGAT 18
                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                           1 acaaaggcatcctgcagtt 19
                                                                                                                                                                                                                                                                                                                                                    l Similarity
16; Conser
                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Page 141; 162pp; English
                                                                                                                                                  (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cerevisiae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0084842
98US-0103355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US10151
                                                                                                                                                                                                                                                                                                                                                                                                                           A; 11 C;
                                                                                                                                                entry)
                                                                                                                                                                                                                                                                                                                                                                  71.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                           11 G; 11 T; 0 other;
                                                                                                                                                                                                              ВP
                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                 Score 14.2;
Pred. No. 1
                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                       acid
                                                                                                                                                                                                                                                                                                                                                                  .2e+03;
                                                                                                                                                                                                                                                                                                                                                                                 DB 21;
                                                                                         human;
                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                 41;
                                                                                                                                                                                                                                                                                                                                                    0
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RESULT 9
AAQ34907/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Antisense oligonucleotide probes 1 and 2 (see AAV36325) are based on human GABA receptor novel epsilon subunit cONA (see AAV36319). Each was radiolabelled at the 3' end with (35s)deoxyadenosine 5'-(thiotriphosphate) and used in in situ hybridisation assays to localise the epsilon subunit in monkey brain. The localisation appeared to be very restricted, residing mainly in the hypothalamus and arcuate nucleus. The new GABA receptor epsilon subunit (see AAW61045) can be used in the screening and design of drugs which act on the GABA receptor and which may be useful e.g. for the modulation of appetite behaviours, hormonal interactions and cognition.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New isolated GABA receptor subunit, epsilon - used to develop products for the screening and design of drugs, e.g. for modulating appetite behaviours, hormonal interactions and cognition
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-OCT-1997;
25-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1998-322722/28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Whiting PJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (MERI ) MERCK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 45 BP; 9 A; 13 C; 11 G; 12 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 3; Page 20; 37pp; English.
                                                                                                                                                                                         Chimaeric;
                                                                                                                                                                                                                               Follicle stimulating hormone re human chorionic gonadotrophin;
                                                                                                                                                                                                                                                                     PCR primer
                                                                                                                                                                                                                                                                                              10-MAY-1993
                                                                                                                                                                                                                                                                                                                                                AAQ34907 standard;
                                                                                                              12-JUN-1992;
                                                                                                                                        23-DEC-1992.
                                                                                                                                                                                                                    chimaera; chimera.
                                                                                       14-JUN-1991;
                                                                                                                                                                 WO9222667-A
             WPI; 1993-018150/02
                                    Bernard M, Moyle WR,
                                                              (UYNE-) UNIV NEW JERSEY
                                                                                                                                                                                                                                                                                                                                                                                                                29 ACAAAAGCTTCCTGATGTTG 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                                                                                                      1 acaaaggcatcctgcagttg 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                            homo sapiens
                                                                                                                                                                                                                                                                      #63 used to make LHR chimaeras.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SHARP & DOHME LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97GB-0020995.
96GB-0024442.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97WO-GB03159
                                                                                       91US-0715911
                                                                                                                92WO-US04987.
                                                                                                                                                                                                                                                                                                                                                  DNA; 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              68.0%;
80.0%;
                                                                                                                                                                                                                                              hormone receptor; luteinising hormone receptor;
                                                                                                                                                                                                                                                                                                                                                  ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 13.6;
Pred. No. 2.
                                                                                                                                                                                                                                glycoprotein hormone receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2.4e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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SQ CCC CXX
    В
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This sequence represents one of 5191 Staphylococcus aureus DNA sequences CC of the invention. The DNA sequences are recorded on a computer readable CC medium, preferably selected from a floppy or hard disk, random access CC memory (RAM), read-only memory (ROM) or CD-ROM. Homology searches using CC the S.aureus DNA sequences allows putative functions to be assigned so CC that protein-encoding or regulatory regions of commercial, therapeutic or CI industrial importance can be obtained. Specifically, sequences which are CI likely to encode antigens have been identified and these polypeptides can be used in a vaccine composition against S.aureus infection. The CI saureus in a sample. S.aureus is implicated in numerous human diseases, CC skin and surgical wound infections, food poisoning, osteomyelitis, CC syndrome, etc. Organisms transformed with the DNA sequences can be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This PCR primer was used with AAQ34908 in the construction vector coding for an LH receptor analogue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Glyco:protein hormone receptor analogues - having binding affinity to human chorionic gonadotrophin, luteinising and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cellulitis; eyelid infection; food poisoning; osteomyelitis; the skin infection; surgical wound infection; scalded skin syndrome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 57 BP; 13 A; 10 C; 19 G; 15 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   vector coding for an
                                                                                                                                                                                                                                                                             polynucleotide(s) and proteins derived stored on computer readable medium and
                                                                                                                                                                                                                                                                                                                                                                                                                                       05-JAN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Computer readable medium; vaccine; S.aureus infection; immunodetection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Staphylococcus aureus contig SEQ ID #3380.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAV77691;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAV77691 standard; DNA; 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            follicle stimulating hormones, useful in bio:immunoassays
                                                                                                                                                                                                                                    Claim 1; Page 2535; 3271pp; English.
                                                                                                                                                                                                                                                                   anti-S.aureus
                                                                                                                                                                                                                                                                                                                             WPI; 1997-374922/35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-JAN-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-JUL-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Staphylococcus aureus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               toxic shock syndrome;
                                                                                                                                                                                                                                                                                                                                                                           Barash SC,
                                                                                                                                                                                                                                                                                                                                                                                                        (HUMA-) HUMAN GENOME SCI INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               48 ACACAGGCATCAAGCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 acaaaggcatcctgcagttg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  34; Page 37; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                            Choi GH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                    vaccines
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97EP-0100117.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           68.0%;
                                                                                                                                                                                                                                                                                                                                                                           Dillon PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 13.6;
Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                              Fannon MR,
                                                                                                                                                                                                                                                                                   l from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  luteinising and
                                                                                                                                                                                                                                                                                   in the production of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
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XAX
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                                                        RESULT
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                                                                                                                                       Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
         AAD26507;
                              AAD26507 standard; DNA; 21
                                                                                                                                                                                           Sequence 20 BP; 3 A; 6 C; 5 G; 6 T; 0 other;
                                                                                                                                                                                                                         PCR primers AAV69904-05 were used to amplify DNA encoding recombinant heat-resistant maltose phosphorylase from Bacillus sp. RK-1 genomic DNA. The enzyme reversibly phosphorylases maltose and has an optimum
                                                                                                                                                                                                                                                                                                          Nucleic acid encoding recombinant heat-resistant maltose phosphorylase - and vectors and host cells, used for the
                                                                                                                                                                                                                                                                          Example 1; Page 8; 27pp; Japanese.
                                                                                                                                                                                                                                                                                                   production of the enzyme
                                                                                                                                                                                                                                                                                                                                                 WPI; 1999-002482/01.
                                                                                                                                                                                                                                                                                                                                                                                                25-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                     25-MAR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                            06-OCT-1998.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JP10262683-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bacillus sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Heat-resistant maltose phosphorylase; Bacillus RK-1; PCR primer; ss
                                                                                                                                                                                                                   temperature of 60-70 degrees
                                                                                                                                                                                                                                                                                                                                                                         SOHS)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PCR primer used to amplify heat-resistant maltose phosphorylase DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         for recombinant production of the polypeptides. The new DNA sequences (and their fragments) are useful as primers or probes for isolating homologues of any of the S.aureus DNA sequences contained on the computer readable medium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAV69904;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAV69904 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 57 BP; 23 A; 8 C; 10 G; 16 T; 0 other;
                                                                                       18 AAGGGCATCCTGCAG 4
                                                                                                                                                  Local Similarity
                                                                                                     3 aaaggcatcctgcag 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 acaaaggcatcctgcagttg 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             acaaaagcatcaagctgttg 20
                                                                                                                                                                                                                                                                                                                                                                         ) SHOWA SANGYO CO
                                                                                                                                     14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                              97JP-0109996
                                                                                                                                                                                                                                                                                                                                                                                                                     97JP-0109996
                                                                                                                                              67.0%;
93.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    68.0%;
                              ΒP
                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                              Score 13.4;
Pred. No. 2.
                                                                                                                                                                                                                   Celsius
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 13.6; DB 18 Pred. No. 2.5e+03; 0; Mismatches 4
                                                                                                                                   Mismatches
                                                                                                                                                                                                                  for maltose
                                                                                                                                             2.7e+03;
                                                                                                                                                         DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18;
                                                                                                                                                                                                                  phosphorolysis
                                                                                                                                                                                                                                                                                                           for the recombinant
                                                                                                                                                        Length 20;
                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 57;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                  0,
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                                                                                                                                Gaps
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                                                                                                                                0;
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KWW WW XE XXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                               γ
                                                                                                                                                                                                                                                                                                                                                                                 Matches
          PAD4; disease resistance; phytoalexin; PR-1; PR-5; pathogenesis related protein; BGLZ; beta-glucanase; ASA1; anthranilate synthase; defence response; salicylic acid; SA; signal transduction; transgenic plant; pathogen; bacteria; fungi; nematode; Phytophthora; Peronospora; Pseudomonas; plant; agronomy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The patent discloses immunologically compatible animal tissue, suitable for xenotransplantation into human patients. The invention also relates to an ovine tissue devoid of antibody-detectable Gal-alpha (1,3)Gal (GAL) determinants which are made by alpha(1,3) galactosyltransferase (GT). The ovine tissue is useful for treatment of human body by surgery or therapy and in xenotransplantation, by transplanting the ovine tissue into a mammal having circulating antibody against Gal alpha(1,3)GT determinants. Polynucleotide constructs of the invention are useful for inactivating an alpha1, 3 GT gene in an ovine cell. Alpha (1,3) GT sequences are useful for drug screening and for the production of GAL containing synthetic oligosaccharides. Sequences of the invention are also useful in gene therapy. The present DNA sequence is a PCR primer which is used for generating phage G alpha (1,3) GT exon 9 DNA.
                                                                                                                          Primer
                                                                                                                                                                                                                           AAD00976 standard; DNA; 20 BP
                                                                                                                                                        21-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 21 BP; 5 A; 4 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 2; Page 25; 86pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           determinants,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          human body by surgery or therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New ovine tissue devoid of antibody-detectable Gal-alpha(1,3)Gal determinants, for xenotransplantation, and in the treatment of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2002-089848/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Denning C, Clark J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       alpha(1,3) galactosyltransferase; alpha(1,3) GT; drug screening; gene therapy; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-MAY-2000;
13-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200188096-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unidentified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GERO-) GERON CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-MAY-2001; 2001WO-US15765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Xenotransplantation; Gal-alpha (1,3)Gal; GAL determinant; surgery;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      898001 PCR primer used to generate alpha (1, 3) GT exon 9 DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-MAR-2002 (first entry)
                                                                                                                                                                                                                                                                                                             15 CANAGGCATCCTGGA 1
                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                               2 caaaggcatcctgca 16
                                                                                                                                                                                                                                                                                                                                                                                   14;
                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                        for TOPP5
                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-204148P
2000US-0593316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PCR primer; ss.
                                                                                                                 CAPS marker to map Arabidopsis thaliana PAD4 gene
                                                                                                                                                                                                                                                                                                                                                                                                67.0%;
93.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6 G; 6 T; 0 other;
PCR primer; TOPP5
                                                                                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                                                                                              Score 13.4; DB 24
Pred. No. 2.7e+03;
                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                              24;
CAPS marker
                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                21;
                                                                                                                                                                                                                                                                                                                                                                              0,
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0,

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В
                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                            C Polymorphic Sequence (CAPS) marker which is used to map

Arabidopsis thaliana PAD4 and pad4-1 genes.

C PAD4 gene is located on Arabidopsis chromosome 3 and encodes a

C protein which plays an important role in disease resistance

C in plants. The protein has positive

C regulatory effect on phytoalexin levels and PR-1 (pathogenesis-related

C protein) expression levels, but has no effect on PR-5 (pathogenesis-

C related protein), BGL2 (beta-glucanase) or ASA1 (anthranilate synthase)

C expression levels in a disease defence response by a host plant.

C PAD4 is required upstream from salicylic acid in the signal

C transduction pathway leading from infection to activation of defence

C resistance to diseases caused due to pathogens such as bacteria, fungi,

C and nematodes, especially Phytophthora, Peronospora or Pseudomonas.

Such transgenic plants are useful agronomically e.g. to improve crop
                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                 Matches
     02-NOV-2000
                         WO200065067-A2
                                               Unidentified
                                                                  PART-1; neoplastic;
                                                                                                   Primer U75329-71R
                                                                                                                      26-FEB-2001 (first entry)
                                                                                                                                                                                                                                                                                                                    Sequence 20 BP; 6 A;
                                                                            Prostate specific androgen regulated protein; ARSDR1; TMPRSS2;
                                                                                                                                                                  AAC83346 standard;
                                                                                                                                                                                                                                                                                                                                         quality or yield.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence is a primer for TOPP5 Cleaved Amplified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 2; Page 48; 181pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New PAD4 polypeptide from Arabidopsis thaliana, useful to enhance plant resistance to diseases due to pathogens such as Phytophthora e.g. to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Glazebrook J, Jirage D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cleaved Amplified Polymorphic Sequence marker; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (UYMA-) UNIV MARYLAND BIOTECHNOLOGY INST. (PLAN-) PLANT BIOSCIENCE LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200029595-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Arabidopsis thaliana
                                                                                                                                                                                                                                                                Local Similarity hes 15; Conserv
                                                                                                                                                                                                                        ω
                                                                                                                                                                                                                                 1 acaaaggcatcctgcagt 18
                                                                                                                                                                                                                      actgaagcatcctgcagt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          crop quality or yields
                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0190733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US26106
                                                                                                                                                                  DNA;
                                                                    S
                                                                                                                                                                                                                                                                          66.0%;
                                                                                                                                                                                                                                                                                                                    5 C;
                                                                                                                                                                                                                      20
                                                                                                                                                                  30
                                                                                                                                                                                                                                                                                                                    5 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tootle T,
                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                        Score 13.2; DB 21 Pred. No. 3.4e+03;
                                                                                                                                                                                                                                                                                                                    4 T; 0 other;
                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Feys BJF;
                                                                                                                                                                                                                                                                                    DB 21;
                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                    20;
                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                              0;
   RESULT 15
AAT02537/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 15; Conserv
Defective pox: virus lacking essential region and comprising foreign
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-APR-1999; 99US-0130778.
30-AUG-1999; 99US-0151585.
30-DEC-1999; 99US-0174003.
24-JAN-2000; 2000US-0177751.
                       WPI; 1995-393089/50
                                                                                                                                09-NOV-1995
                                                                                                                                                                         Synthetic.
                                                                                                                                                                                                                                                              07-JUN-1996
                                          Dorner F,
                                                               (IMMO ) IMMUNO AG
                                                                                      29-APR-1994;
                                                                                                           28-APR-1995;
                                                                                                                                                     WO9530018-A2
                                                                                                                                                                                                                                        Vaccinia virus ORF A8L primer oa8-9t.
                                                                                                                                                                                                                                                                                                      AAT02537 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 30 BP; 8 A; 7 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             prostate neoplastic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 11; Page 59; 121pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21-APR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nelson PS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                               2 caaaggcatcctgcagtt
                                                                                                                                                                                                                                                                                                                                                           caaagccatcttgctgtt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000-679676/66.
                                          Falkner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hood L,
                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-US10920
                                                                                      94US-0235392
                                                                                                           95WO-EP01629
                                                                                                                                                                                                                                                                                                       DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              condition.
                                                                                                                                                                                                                                                                                                                                                                                                               66.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lin
                                           Holzer
                                                                                                                                                                                                                                                                                                       43
                                                                                                                                                                                                                                                                                                                                                            24
                                                                                                                                                                                                                                                                                                                                                                                19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         5 G;
                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                               Score 13.2;
Pred. No. 3.
                                          9
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Foreign protein; vaccine; defective poxvirus; vaccinia; complementation; esssential region; primer; PCR; amplification; helper cell line; ss; viral genome organisation; homologous recombination; expression cassette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention relates to prostate specific androgen regulated proteins. The invention may be used to determine an expression level of the prostate-specific proteins ARSDRI, TMRPRS2, or PART-1 in a fluid sample or prostate cell sample from an individual. It may also be used for diagnosing and predicting the susceptibility of a prostate neoplastic condition in an individual. Inhibitors of the proteins are useful for treating or preventing the progression of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Polynucleotide encoding prostate specific androgen regulated polypeptides and inhibitor of the peptides useful for treating reducing the progression of prostate neoplastic condition in individual -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .6e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DΒ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    treating or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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0

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The expression of foreign proteins for use as vaccines involves the construction of a defective poxvirus, pref. vaccinia, in which the DNA encoding the foreign protein is inserted into a deleted essential region of the virus. The defective viruses are only viable by complementation which is provided by an external source e.g. as a plasmid such as pCRII contg. the required gene.

The primers AAT02537-8 were used to amplify the vaccinia ABL open reading frame (ORP) for the construction of a helper cell line contg. the plasmid pSV-ABL-EDH. This plasmid contains the ABL gene (which encodes the larger (82 kD) subunit of the vaccinia virus early transcription factor (VETF)) under control of the SY40 promoter. It expresses the ABL gene product in transfected monkey kidney Vero cells and can complement the defective vaccinia virus d-ABL-ZG, in which the wild type ABL gene is replaced, by homologous recombination, with a defective ABL gene contg. a clacz-gpt expression cassette. The primers amplify the ABL sequence as a CL lkb prod. which was cloned into pCRII to produce pCR-ABLt. This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                {\tt DNA} - is only viable in presence of complementation, useful for vaccines
Sequence 43 BP; 16 A; 6 C; 10 G; 11 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 3; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21; 67pp; English
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δÃ
                           Query Match
Best Local S
Matches 13
l Similarity 100
13; Conservative
                         65.0%; sc.
100.0%; Pr
                           Score 13; DB; Pred. No. 4.7
                           DB 16; I
4.7e+03;
thes 0;
                                        Length 43;
                            Indels
                            0;
                            Gaps
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Search completed: June 28, 2002, 22:40:08 Job time:  $8084\ sec$ 

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Result
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Run on:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Perfect score:
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       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score
     Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Issued_Patents_NA:*
1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*
3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*
5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
6: /cgn2_6/ptodata/1/ina/backfiles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         June 28, 2002, 22:16:41; Search time 334.55 Seconds (without alignments)
14.684 Million cell updates/sec
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Listing first 45 summaries
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Copyright (c) 1993 - 2000
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                       US-07:977-434-26

US-08-475-231-30

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PCT-US91-07035-26

US-09-199-290-20

US-08-446-935-13

US-08-852-001-15

US-08-310-416A-7

US-08-888-171-7

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US-08-513-974B-89
US-08-513-974B-137
US-08-513-978-4
US-08-513-974B-86
US-08-513-974B-138
US-07-971-819A-30
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US-08-465-485A-5
US-09-080-285-5
US-08-217-082A-6
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US-09-080-285-6
US-08-513-974B-87
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Compugen Ltd.
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00 00 000 110 11	175-08-894-173-11	US-08-299-249A-15	US-08-776-971-30	US-08-513-974B-76	US-08-513-974B-2	US-08-905-817-19	US-08-348-891A-19	US-08-584-040-7778	5422249-11	US-07-859-453E-11	US-07-859-453E-9	US-07-859-453E-7	US-07-859-453E-5	US-08-560-098A-40	US-07-854-596B-55	US-07-854-596B-54	US-08-414-657D-40	US-08-785-247-19
rddir (rr compaña)	Sequence 11. April	Sequence 15, Appl	Sequence 30, Appl	Sequence 76, Appl	Sequence 2, Appli	Sequence 19, Appl	Sequence 19, Appl	Sequence 7778, Ap	Patent No. 5422249	Sequence 11, Appl	Sequence 9, Appli	Sequence 7, Appli	Sequence 5, Appli	Sequence 40, Appl	Sequence 55, Appl	Sequence 54, Appl	Sequence 40, Appl	Sequence 19, Appl

ALIGNMENTS

RESULT

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TOPOLOGY: linear nucleic MOLECULE TYPE: other nucleic DESCRIPTION: Synthetic DNA ANTI-SENSE: YES US-08-217-082A-5
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GENERAL INFORMATION:
                                                                                                                                                                TELEFAX: (408) 436-207
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: U.S.A.
ZIP: 95110
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 0 FILING DATE: 21-FEB-1992 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                            REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION
TELEPHONE: (408) 436-2070
                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION: NAME: Fortney, Andrew D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: 435
PRIOR APPLICATION DATA:
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TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES
TITLE OF INVENTION: GROWTH OF CELLS EXPRESSING
NUMBER OF SEQUENCES: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US 07/288,692 FILING DATE: 22-DEC-1988
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: San Jose
STATE: California
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                                                                                                    STRANDEDNESS:
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                                                                                                                                               LENGTH:
                                                                                                  H: 20 base pairs
nucleic acid
DEDNESS: single
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RESULT 3
US-09-080-285-5
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; ANTI-SENSE: Y
US-08-465-485A-5
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                                                                                                                        Matches
                                                                                                                                      Best Local Similarity
                                                                                                                                                   Query Match
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Best Local Similarity 100.0%;
Matches 20; Conservative 0;
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                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 333
TELECOMMUNICATION INFORMATION:
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APPLICATION NUMBER: US 0
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA;
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 0 FILING DATE: 20-SEP-1993
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                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 0 FILING DATE: 22-DEC-1988
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                                                             ACAAAGGCATCCTGCAGTTG 20
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1755 S. Jefferson Davis Hwy., Suite 400
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                                                                                                                      Conservative
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                                                                                                                                     100.0%; Score 20; 100.0%; Pred. No.
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Pred. No.
                                                                                                                      Mismatches
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                                                                                                Sequence 6, Application US/08217082A Patent No. 5734033
GENERAL INFORMATION:
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Best Local
                                                                                                                                                                                                                                                                                             Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/
FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/
FILING DATE: 21-FEB-1992
                CORRESPONDENCE ADDRESS:
                                                  TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES FOR INHIBITING TITLE OF INVENTION: GROWTH OF CELLS EXPRESSING THE HUMAN BCL-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/288,692
FILING DATE: 22-DEC-1988
                                   NUMBER OF SEQUENCES:
                                                                                   APPLICANT: Reed,
                                                                                                                                                                                                                                                                                                                                                                                                ANTI-SENSE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 20 base pairs TYPE: nucleic acid STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Fortney, Andrew D. REGISTRATION NUMBER: 34, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: U.S.A.
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                                                                                                                                                                                                                                                                                                            Similarity
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1755 S. Jefferson Davis Hwy.,
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OR SEQ ID NO: 5:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                 YES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (408) 436-2070
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT
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                                                                                     John
                                                                                                                                                                                                                                                                                                          100.0%; Score 20; DB 3
100.0%; Pred. No. 0.31;
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ADDRESSEE:

P.C.

224 Airport Parkway

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                                                                                                                                                                                                                                                                                                                                   Sequence 6, Application US/08465485A Patent No. 5831066 GENERAL INFORMATION:
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Best Local Similarity
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FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/
FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: (408) 436-2075 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                              APPLICANT: Reed, John
TITLE OF INVENTION: Regulation of bcl-2 Gene Expression
NUMBER OF SEQUENCES: 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE:
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CURRENT APPLICATION DATA:
CURRENT APPLICATION DATA:
US/08/217,082A
                                            SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                              COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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CITY: San Jose
CITY: Californ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0)
                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                              COUNTRY:
                                                                                                                                                                                                 CITY: Arlington
                                                                                                                                                                                                                                     ADDRESSEE:
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                                                                                                                                                                                                                 STREET:
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CLASSIFICATION:
               FILING DATE:
                              APPLICATION NUMBER: US/08/465,485A
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                                                                                                                                                               Virginia
Y: U.S.A.
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1755 S. Jefferson Davis Hwy., Suite 400
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              05-JUN-1995
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Best Local Similarity
Matches 20; Conserv
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TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 36 base pairs
                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/124,256
APPLICATION UNMBER: US 08/124,256
FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
OFFICIAL OBTER: US 07/840,716
                                                                                                                                                                                                                                                              COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/080,285
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REFERENCE/DOCKET NUMBER: 333
TELECOMMUNICATION INFORMATION:
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FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: US 0:
FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Regulation of bcl-2 Gene Expression NUMBER OF SEQUENCES: 29
                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/465,485
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                                     PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                  STATE: Virginia COUNTRY: U.S.A.
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                                                     APPLICATION NUMBER: US 0 FILING DATE: 21-FEB-1992
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APPLICATION NUMBER: US 07/288,692 FILING DATE: 22-DEC-1988
                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE:
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Patent No. 6114139
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Best Local Similarity
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TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 6:
                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/O
FILING DATE: 14-SEP-1995
CLASSIFICATION: 536
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: HOSOYA, MASAKİ
APPLICANT: FUJİİ, RYO
APPLICANT: Ohtaki, Tetsuya
APPLICANT: Fukusumi, Shoji
APPLICANT: Ohti, Kazuhiro
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                                                                           APPLICATION NUMBER: JP 7-FILING DATE: 16-MAR-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: G PROTEIN COUPLED RECEPTOR PROTEIN, TITLE OF INVENTION: PRODUCTION, AND USE THEREOF NUMBER OF SEQUENCES: 380
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LENGTH: 36 base pairs
TYPE: nucleic acid
                               PRIOR APPLICATION DATA:
                                                                                                                                                                   APPLICATION NUMBER: PCT/:
FILING DATE: 10-AUG-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 7-
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TELECOMMUNICATION INFORMATION:
                                                                                                                                   PRIOR APPLICATION DATA:
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                                                 APPLICATION NUMBER: JP 7 FILING DATE: 20-JAN-1995
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              APPLICATION NUMBER:
                                                                                                                                                     FILING DATE: 19-AUG-1995
                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                      14-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                          Floppy disk
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28-DEC-1994
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                 JP 6-326611
                                                                  JP 7-007177
                                                                                                                                                                       JP 7-093989
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                                                                                                                    JP 7-057186
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Pred. No. 0.34;
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                         APPLICANT:
APPLICANT:
                                                                         COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-523-3400
TELEFAX: 617-523-6440
                                           SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                         APPLICANT: Ohgi, Kazuhiro
TITLE OF INVENTION: G PROTEIN COUPLED RECEPTOR PROTEIN,
TITLE OF INVENTION: PRODUCTION, AND USE THEREOF
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6
                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                          APPLICANT:
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TYPE: n
                                                                                                                                                                                            STREET: 130 V
CITY: Boston
               APPLICATION NUMBER: US/08/513,974B FILING DATE: 14-SEP-1995
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CLASSIFICATION:
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REFERENCE/DOCKET NUMBER:
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EDNESS: double
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Fujii, Ryo
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Fukusumi, Shoji
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                                                                                                                                                                                                                                                                                                                                                                         Masaki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     76.0%; Score 15.2;
85.0%; Pred. No. 67;
                                                                                                                                                                                                                                                             380
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PRIOR APPLICATION DATA:

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US-08-513-974B-89/c
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US-08-513-974B-90
                                                                                                                                                              Sequence 89, Application US/08513974B Patent No. 6114139
                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                              GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
                                              APPLICANT:
APPLICANT:
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APPLICATION NUMBER:
FILING DATE: 30-SEP-
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FILING DATE: 10-AUG-1995
PRIOR APPLICATION DATA:
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APPLICATION NUMBER: JP 6-
FILING DATE: 11-AUG-1994
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APPLICATION NUMBER: JP 6-270017
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APPLICANT: Fukusumi, Shoji
APPLICANT: Ohgi, Kazuhiro
TITLE OF INVENTION: G PROTEIN COUPLED RECEPTOR PROTEIN,
TITLE OF INVENTION: PRODUCTION, AND USE THEREOF
NUMBER OF SEQUENCES: 380
                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 27 base pairs
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APPLICATION NUMBER:
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                                                                             Hinuma, Shuji
Hosoya, Masaki
Fujii, Ryo
Ohtaki, Tetsuya
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88.2%;
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Pred. No. 3
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3.2e+02;
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Best Local Similarity
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ADDRESSEE: DIKE, BRONSTEIN, ROBERTS & CUSHMAN, LLP
                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: 45
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-523-3400
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PRIOR APPLICATION DATA:
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PRIOR APPLICATION DATA:
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APPLICATION NUMBER:
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STREET: LUI
STREET: LUI
STREET: LUI
BOSTON
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ATTORNEY/AGENT INFORMATION:
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23 AAAGGCATCCAGCAG
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FTI.ING DATE: 11-AUG-1994
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                                                                 Conservative
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19-AUG-1995
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11-AUG-1994
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                                                                 0; Mismatches
                                                                                Score 13.4; DB 3;
Pred. No. 4.9e+02;
                                                                                              Length 27;
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US-08-513-974B-137/c
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INFORMATION FOR SEQ ID NO:
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                                                   REFERENCE/DOCKET NUMBER: 45753 TELECOMMUNICATION INFORMATION:
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APPLICATION NUMBER: JP 6
FILING DATE: 11-AUG-1945
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PRIOR APPLICATION DATA:
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APPLICATION NUMBER:
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PRIOR APPLICATION NUMBER: JP 7-057186
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TITLE OF INVENTION: G PROTEIN COUPLED RECEPTOR PROTEIN,
TITLE OF INVENTION: PRODUCTION, AND USE THEREOF
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FILING DATE: 30-SEP-
PRIOR APPLICATION DATA:
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APPLICATION NUMBER: PCT/JP95/01599
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CITY: I
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                       NAME: Resnick, David S. REGISTRATION NUMBER: 34
                                                                                                                                                                                                                                                       APPLICATION NUMBER: JP 6 FILING DATE: 11-AUG-1994
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                   TELEPHONE: 617-523-3400
TELEFAX: 617-523-6440
                                                                                                                                                  FILING DATE: 11-AUG-1994
                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
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Fujii, Ryo
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                                                                                                                                                                                                                                                                                                              30-SEP-1994
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28-DEC-1994
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US-08-932-978-4
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                                                              Matches
                                                                           Query Match
Best Local Similarity
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Best Local Similarity 93.3%;
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                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: GM
TELECOMMUNICATION INFORMATION:
TELEPHONE: 215-994-2252
                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Dickinson, Todd Q
REGISTRATION NUMBER: 28,
                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: 536 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
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APPLICANT: Brown, James
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                                                                                                                                                                    TYPE: nucleic acid
STRANDEDNESS: single
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OPERATING SYSTEM:
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ZIP: 19103
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CITY: Philadelphia
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STRANDEDNESS: doub
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                                                                                                                                                                                                                                                                  TELEFAX: 215-994-2222
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
                                                                                                                                                                                                   LENGTH: 21 base pairs
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1 ACAAAGGCATCATCCA 16
                1 acaaaggcatcctgca 16
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                                                              Conservative
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                                                                           64.0%;
87.5%;
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                                                            Score 12.8; DB 2;
Pred. No. 9.3e+02;
0; Mismatches 2;
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Pred. No. 5e+02;
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RESULT

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US-08-513-974B-86/c
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                                                     INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: JP 7-
FILING DATE: 16-MAR-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 7-
FILING DATE: 20-JAN-1995
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APPLICATION NUMBER:
FILING DATE: 19-AUG-
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ADDRESSEE: DIKE, BRONSTEIN, ROBERTS & CUSHMAN, LLP
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APPLICATION NUMBER: JP 6-189274
FILING DATE: 11-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 6-189273
FILING DATE: 11-AUG-1945
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APPLICANT: Ohgi, Kazuhiro
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                 SEQUENCE CHARACTERISTICS:
LENGTH: 27 base pairs
                                                                                         REFERENCE/DOCKET NUMBER: 45
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-523-3400
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APPLICATION NUMBER:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
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Ohtaki, Tetsuya
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; TOPOLOGY: linear; MOLECULE TYPE: cDNA US-08-513-974B-86
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Sequence 138, Appr
Sequence 138, Appr
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Sequence 138, Appr
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Best Local Similarity
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APPLICATION NUMBER: PCT/JP95/01
FILING DATE: 10-AUG-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 7-093989
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APPLICANT: Ohgi, Kazuhiro
TITLE OF INVENTION: G PROTEIN COUPLED RECEPTOR PROTEIN,
TITLE OF INVENTION: PRODUCTION, AND USE THEREOF
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              FILING DATE: 30-SEP-1994
PRIOR APPLICATION DATA:
                                                             FILING DATE: 30-SEP-PRIOR APPLICATION DATA:
                                                                                                               FILING DATE: 02-NOV-PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                  APPLICATION NUMBER: JP 6 FILING DATE: 28-DEC-1994
                                                                                                                                                                                                                                  APPLICATION NUMBER: JP 7 FILING DATE: 20-JAN-1995
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: DIKE, BROWLE STREET: 130 Water Street
                                                                                                 APPLICATION NUMBER:
                                                                                                                                  APPLICATION NUMBER: JP 6 FILING DATE: 02-NOV-1994
                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE:
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APPLICATION NUMBER:
                                               APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Application US/08513974B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fujii, Ryo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hosoya,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hinuma,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DIKE, BRONSTEIN, ROBERTS & CUSHMAN, LLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Floppy disk
                                                                           UMBER: JP 6-236357
30-SEP-1994
                                                                                                                                                                                                                                                                                       16-MAR-1995
                                                                                                                                                                                                                                                                                                                                        19-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-SEP-1995
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87.5%;
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                                                                                                                                                    JP 6-270017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US/08/513,974B
 JP 6-189274
                                                   JP 6-236356
                                                                                                                                                                                                                                                       JP 7-007177
                                                                                                                                                                                                                                                                                                      JP 7-057186
                                                                                                                                                                                                     JP 6-326611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 12.8; DB 3; Pred. No. 9.6e+02;
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US-07-971-819A-30

Query Match

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RESULT 14
US-07-971-819A-30
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                                                                                                    INFORMATION FOR SEQ ID NO:
                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: Stacey R. Sias, ph.D.
REGISTRATION NUMBER: 32,630
REFERENCE/DOCKET NUMBER:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (510) 814-2863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: 138:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Lawyer, Frances C.
APPLICANT: Stoffel, Susanne
TITLE OF INVENTION: Purified Thermostable Nucleic Acid
TITLE OF INVENTION: Polymerase Enzyme from Thermotoga Maritima
NUMBER OF SEQUENCES: 46
   MOLECULE TYPE:
                                                                                      SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                             SOFTWARE: WordPerfect CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: Hoffmann-La Roche Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION: TELEPHONE: 617-523-3400
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                                TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                              APPLICATION NUMBER: FILING DATE: 19930:
                                                                                                                                                                                                                                                                                                                                             COMPUTER: Apple Macintosh
OPERATING SYSTEM: Macinto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Resnick, David S. REGISTRATION NUMBER: 34 REFERENCE/DOCKET NUMBER:
                 TOPOLOGY:
                                                                                                                         TELEX:
                                                                                                                                                                                                                                                            CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Diskette, 3.50 inch, 800 Kb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: JP 6-
FILING DATE: 11-AUG-1945
                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
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                                                                    LENGTH:
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                                                                    28 bases
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                                                                                                                                        (510) 814-2977
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                 linear
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Other Nucleic Acid
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87.5%;
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Pred. No. 9.7e+02;
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US-07-977-434-26
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PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 143

APPLICATE: 12-JAN-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 746,121
FILING DATE: 15-AUG-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: WordPerfect 2.1 CURRENT APPLICATION DATA:
            PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                  FILING DATE: 20-SEP-
PRIOR APPLICATION DATA:
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APPLICATION NUMBER: 1
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PRIOR APPLICATION NUMBER: US 590,213
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Gelfand, David H.
APPLICANT: Abramson, Richard D.
TITLE OF INVENTION: 5' TO 3' EXONUCLEASE MUTATIONS OF
TITLE OF INVENTION: THERMOSTABLE DNA POLYMERASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STATE: New JUNE 1199 OT110-1199
                                                                                                                                                        FILING DATE:
                                                                                                                                                                                                                                                             APPLICATION NUMBER: US 8: FILING DATE: 22-AUG-1986
                                                                                                                                                                                                                                                                                                                    FILING DATE:
                                                 FILING DATE:
                                                                  APPLICATION NUMBER:
                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                      APPLICATION NUMBER: WO PCT/US90/07641 FILING DATE: 21-DEC-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 5
FILING DATE: 28-SEP-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 590,490 FILING DATE: 28-SEP-1990
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
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nes 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: Nutley
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5. 5466591
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02-NOV-1990
                                                 22-DEC-1989
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78.9%;
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                                                                                                                     US 585,471
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                                                                  US 455,611
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              us 609,157
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PRIOR APPLICATION NUMBER: US 557,517

PILING DATE: 24-JUL-1990

ATTORNEY/AGENT INFORMATION:

NAME: Luann Cserr

REGISTRATION NUMBER: Gase No. 5466591 8753

TELECOMMUNICATION INFORMATION:

PLEPHONE: (310) 814-2972

INFORMATION FOR SEQ ID NO: 26:

SEQUENCE CHARACTERISTICS:

LENGTH: 28 nuclectides

TYPE: nucleic acid

STRANDEDNESS: single

TOPOLOGY: linear

MOLECULE TYPE: DNA primer FL63

HYPOTHETICAL: NO

ANTI-SENSE: NO

US-07-977-434-26

Query Match
Best Local Similarity 78.9%; Pred. No. 1.2e+03;
Matches 15: Conservative 0; Mismatches 4; Indels

QU 1 acaaaggcatcctgcagtt 19

Length 28;

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Search completed: June 28, 2002, 22:16:43
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perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB seq length: 0 Maximum DB seq length: 75
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Maximum Match 100%
Listing first 45 summaries
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       Result
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                                         Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
Score
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Gapop 10.0 , Gapext 1.0
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Copyright (c) 1993 - 2000 Compugen Ltd.
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Query
Match Length DB
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gb_htg:*
gb_in:*
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# ALIGNMENTS

Query Match Best Local	BASE COUNT ORIGIN	TITLE JOURNAL FEATURES	REFERENCE AUTHORS	KEYWORDS SOURCE ORGANISM	ACCESSION VERSION	RESULT 1 AR052608 LOCUS
Query Match Best Local Similarity	7 8		1 (bases 1 to 36) Reed, J.C. of hol-2 gene expression	Unknown. Unknown.	AR052608 AR052608.1	AR052608 Sequence 6 from patent US 5831066.
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                                                                                                                                                                                                                                                                        Method and reagent for treatment of diseases caused by expression of the bcl-2 gene Patent: US 5750390-A 16 12-MAY-1998;
                                                                                                                                                                            Similarity
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Curagen Corporation (US)
Location/Qualifiers
              Shimkets,R.A. and Leach,M. Nucleic acids containing single nucleotide polymorphisms and methods of use thereof Patent: WO 0140521-A 6449 07-JUN-2001;
                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                Homo sapiens
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AX163122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Curagen
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Patent:
                                                                                                                                                                                                Astyanax fasciatus red visual pigment gene (R007), exon 6. m38630
                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Euteleostei; Ostariophysi; Characiformes; Characidae; Tetragonopterinae; Astyanax.
                                                                                                                                                              visual pigment
                                                                                                                                                                                  M38630.1 GI:210992
                                                                                                                                                                                                                               ASYPIGR6
genes in fish, Astyanax fasciatus, and human
            Yokoyama, R. and Yokoyama, S. convergent evolution of the red- and green-like visual pigment
                                                                                                               Astyanax mexicanus
                                                                                                                             Astyanax fasciatus DNA, clone lambda R007
                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
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                                             (bases 1 to 60)
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Corporation (US)
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/db_xref="taxon:9606"
26
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Accession number cg27837466"
18 c 12 g 11 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="2 of 2 allelic variants (6449 is other entry) Accession number cg27837466" a 19 c 12 g 10 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /db_xref="taxon:9606"
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Pred. No. 1.7e+04;
0; Mismatches 12
                                                                                                                                                                                                                                                                                                                                                                                   0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                Score 16.8; DB 6;
Pred. No. 1.7e+04;
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COMMENT
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FEATURES
                                                COMMENT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      33 AGCTGCATGATGCATACGCGGAACTGCA 6
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Draft entry and computer-readable sequence for [Proc. Natl. Acad. Sci. U.S.A. (1990) In press] kindly submitted by S.Yokoyama, 18-SEP-1990.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Proc. Natl. Acad. Sci. U.S.A. 87 (23), 9315-9318 (1990) 91067696
                     GenBank staff at the National Library of Medicine created this entry [NCBI glbbsq 68042] from the original journal article. This sequence comes from Fig.2. deletion of TG.GCT.GGT.GT at codons 134-137 (Val.Ala.Gly.Val) and the insertion of GC.AG (Gly.Arg).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S68042
                                                                                                                                                            Huisman,T.H.

Dominant beta-thalassaemia trait in a Portuguese family is caused by a deletion of (G)TGGCTGGTCT(G) and an insertion of (G)GCAG(G) in codons 134, 135, 136 and 137 of the beta-globin gene Br. J. Haematol. 79 (2), 306-310 (1991)
                                                                                                                                                                                                                                                                         Oner,R., Oner,C., Wilson,J.B., Tamagnini,G.P., Ribeiro,L.M. and
                                                                                                                                                                                                                                                                                                                                                                                                                                        S68042.1 GI:239717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                S68042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hemoglobin beta chain [human, Genomic Mutant, 42 nt]
                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                           92068764
                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
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/product="red visual pigment"
/protein_id="AAA62672.1"
/protein_id="AAA62672.1"
/db_xref="GI:210994"
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/translation="MGDQWGDAVFAARRRGDDTTREAAFTYTNSNNTKDPFEGPNYHI
APRWYYNLATCWMFFVYVASTYTNGLYLVASAKFKKLHPLNTLVNILAIADLLETLL
APRWYYNLATCWMFFVYVASTYTNGLYLVASAKFKKLHPLNTLVNILAIADLLETLL
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M38628.1:11. .176,M38629.1:11. .250,11. .60)
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FDGKMATAGIVFTWVWSAVWCAPPIFGWSRYWPHGLKTSCGFDVFSGSEDPGVOSYMI
VLMITCCFIPLGIIILCYIAVWWAIRTVAQQQKDSESTQKAEKEVSRWVVVMIMAYCF
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11 c 19 g
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    Location/Qualifiers
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75.0%;
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Pred. No. 1.
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                                                                      4 ccaactgcaggatgcctttgtggaact 30
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                                                                                                                                                                                                                                                                                                                    Direct Submission
Submitted (04-JUN-1991) Triebel, F., INSERM U333, Institute
Gustave-Roussy, Laboratoire d'hemato-immunologie, 39 Rue Camille
Desmoulins, 94805 Villejuif, Cedex, France
See also X58736-X58740, X58744-X58769.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Studies on the human T cell receptor alpha/beta variable region genes. I. Identification of 7 additional V alpha subfamilies and 14
                                                                                                                            Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                               91209401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            J alpha gene segments
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Roman Roman, S., Ferradini, L., Azocar, J., Genevee, C., Hercend, T. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                       /organism="Homo sapiens"
/db_xref="taxon:9606"
/cell_type="I lymphocytes"
/clone="IGROal2"
a 19 c 13 g 12 t
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                                                                                                                                                                                                                                                                                                             Location/Qualifiers
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/db_xref="GI:239718"
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/db_xref="taxon:9606"
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                                                                                                                          43.98;
74.18;
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65.78;
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                                                                                                                          Score 15.8; DB 9;
Pred. No. 4.6e+04;
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Pred. No. 4.6e+04;
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                                                                                                                                                                                                                                                                                                                                                                                                          4 ccaactgcaggatgcctttgtggaact 30
                                                                                                  Roles of jak/stat family members in tolerance induction Patent: WO 0179555-A 23 25-OCT-2001; Millennium Pharmaccuticals, Inc. (US)
                                                                                                                                                                                                                                                                          Sequence 23 from Patent W00179555
AX354576
                                                                                                                                                                                        artificial sequence.
                                                                                                                                                                                                            synthetic construct
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                                                                                                                                                            Hancock, W.W. and Ozkaynak, E.
                                                                                                                                                                                                                                                           AX354576.1 GI:18619378
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Amino acid sequences of seven V beta, eight V alpha, and thirteen alpha novel human TCR genes
Immunogenetics 38 (2), 163 (1993)
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"O'region; T-cell receptor; alpha-chain.

Homo sapiens (individual_isolate Ja.n8) blood cDNA to mRNA
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1 (bases 1 to 66)
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                                           /organism="synthetic construct"
/db_xref="taxon:32630"
                        /note="antisense molecule"
                                                                                            Location/Qualifiers
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/note="G00-120-404"
/product="T-cell receptor alpha"
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/isolate="Ja.n8"
/db_xref="taxon:9606"
/map="14q11.2"
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                                                      y Match 42.8%; Score 15.4; DB 6; Length 31; Local Similarity 67.9%; Pred. No. 6.8e+04; hes 19; Conservative 0; Mismatches 9; Indels
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AR178017
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Sequence 5 from patent US 6315995.
AR178018
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent: US 6315995-A 4 13-NOV-2001;
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Local Similarity 67.9%;
hes 19; Conservative (
28 ACCCCAGGGGGNNNTAGAGGAACTGTAC 1
               7 actgcaggatgcctttgtggaactgtac 34
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Sequence 6 from patent US 6315995.
AR178019
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                                                                                                                                                                                                                                                                 Unknown
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#### ALIGNMENTS

AAQ86648 RESULT AAQ86648; AAQ86648 standard; DNA; 36 BP Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy; leukemia; lymphoma; solid tumor; breast cancer; autoimmune disease; Bcl-2 splice acceptor site. 27-SEP-1995 30-MAR-1995. WO9508350-A. Synthetic. 20-SEP-1994; ָ ע (first entry) 94WO-US10725

Anti-code oligomers which bind to bcl-2 mRNA - for the treatment of human solid tumours, esp. breast cancer  $\,$ WPI; 1995-139394/18.

Reed JC;

(REED/) REED J C 20-SEP-1993;

93US-0124256

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Best Local Similarity

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                              This is a human bcl-2 oligonucleotide based on which an antisense oligonucleotide complementary to the splice acceptor site of the human bcl-2 mRNA can be constructed. Bcl-2 antisense oligonucleotides straddle strategic sites such as the translation initiation site, donor and acceptor splicing sites, or sites for transportation or degradation. Blocking translation at such strategic sites prevents the formation of a functional bcl-2 gene product. These oligonucleotides may be used for treating cancers associated with high levels of bcl-2 gene expression,
                           especially lymphomas
                                                                                                                                                                    Disclosure; Columns 3-4; 21pp; English.
                                                                                                                                                                                                            Anti-sense oligo:nucleotide(s) complementary to BCL-2 mRNA - useful
                                                                                                                                                                                                                                           WPI; 1998-229881/20
                                                                                                                                                                                                                                                                                                                                               21-FEB-1992;
22-DEC-1988;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human bcl-2 oligonucleotide
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                                                                                                                                                                                               for treating cancers, e.g. lymphoma(s) and some
                                                                                                                                                                                                                                                                                                     (UYPE-) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Antisense oligonucleotide; bcl-2 gene; lymphoma; leukaemia; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-JUN-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   use as a control.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 36 BP; 7 A; 11 C; 10 G; 8 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 13; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 cccccaactgcaggatgcctttgtggaactgtacgg
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88US-0288692.
94US-0217082.
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                         and some leukaemias
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                                                                                                                                                                                               leukaemia(s)
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Query Match

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sequences, encode aberant cellular proteins which are able to control cellular proliferation and are directly linked to a leukemic phenotype. These target sequences are identified by the ribozyme of the invention. The ribozymes is formed in a hammerhead motif, but may also be formed in the motif of a hairpin, hepatitis delta virus, group I intron or RNaseP-like RNA. These ribozymes may be used to inhibit the development or expression of a transformed phenotype in man and other animals by modulating expression of the corresponding gene. Cleavage of target mRNAs expressed in pre-neoplastic and transformed
                                                                                                                                                                                                                                                                                                                    associated with development or maintenance of chronic myelogenous leukemia (CML), promyelocytic leukemia, Burkitt's lymphoma, or acute lymphocytic leukemia, follicular lymphoma, B-cell acute
                                                                                                                                                                                                                                                                                                                                                                                                                 The sequences given in AAQ51825-2266 represent areas of mRNAs which are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 3; Fig 6; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    multiple drug resistance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New enzymatic RNA molecules (ribozymes). - associated with tumours or mRNA expressed
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-AUG-1992;
07-DEC-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          human; chronic myelogenous leukemia; CML; follicular lymphoma; B-cell acute lymphocytic leukemia; breast cancer; colon carcinoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New enzymatic RNA molecules
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26-AUG-1992;
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26-AUG-1992;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      resistance; chemotherapeutic agent; colohicine; doxorubicin; colon; actinomycin D; vinblastine; small intestine; kidney; adrenal gland; adenocarcinoma; bowel; transformed phenotype; promyelocytic leukemia; human; chronic myelogenous leukemia; CML; follicular lymphoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-AUG-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Multiple drug resistance; mdr-1; ribozyme; membrane protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BCL-2 mRNA ribozyme cleavable nucleotide (2043).
                                                                                                                                                                                                                                                                                           ymphocytic leukemia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hairpin; hepatitis delta virus; group I intron; RNaseP; ss.
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                                                                                                                                                                                                                                                                      lung cancer.
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                                                                                                                                                                                                                                                                emia, breast cancer, colon carcinoma, neuroblastoma
The full length mRNAs containing these target
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; Mismatches 0;
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22-DEC-1988;
24-MAR-1994;
                                                                                                                                   phosphorothioate derivatives and can straddle strategic sites such as the translation initiation site, donor and acceptor splicing sites, or sites for transportation or degradation. Blocking translation at such strategic sites prevents the formation of a functional bcl-2 gene product. These oligonucleotides may be used for treating cancers associated with high
                                                                                                                                                                                                                                                                                                  WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cells elicits inhibition of the transformed state. Multiple drucesistance (mdr·1) mRNA specific ribozymes remove the mechanism drug resistance used by transformed cells and thus enhances drug therapies for tumours. The ribozymes may also be used to study
                                                                                                                                                                                                 This antisense oligonucleotide is complementary to the splice acceptor site of the human bcl-2 mRNA. The Bcl-2 antisense oligonucleotides are
                                                                                                                                                                                                                                       Claim
                                                                                                                                                                                                                                                              Anti-sense oligo:nucleotide(s) complementary to BCL-2 mRNA - for treating cancers, e.g. lymphoma(s) and some leukaemia(s)
                                                                                                                                                                                                                                                                                                                           Reed
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                                                                                     Sequence 20 BP;
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                                                                                                                           evels of bcl-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                    PENNSYLVANIA
                                                                                                                                                                                                                                                                                                                                                                          92US-0840716.
88US-0288692.
94US-0217082.
                                                                                                                                                                                                                                                                                                                                                                                                                           94US-0288692
                                                                                                                         gene
                                                                                        σ
                                                                                     A; 5 C; 5 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            66.7%;
70.8%;
                                    55.6%;
                                                                                                                         expression,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
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                        0;
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                                                 Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           36
                                      Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                         Mismatches
                                                                                                                         especially
                                                 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 14;
                                                 DB 19;
                                                                                                                         lymphomas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 34,
                                                Length 20;
                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Muitiple drug
                                                                                                                            and some
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                         0;
                                                                                                                                                                                                                                                                           useful
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                         Gaps
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                         0;
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RESULT 5
AAC65053/c
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XX XX DXX XX
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                                                                                                                                                                                                           δõ
                                                                                                                                     AAV36324
                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAC65053 standard;
                                                                                                                                                                                                                                                                                                                         containing a number of degenerate bases and with a modified backbone which can be used to direct cleavage of target RNA molecules. The use of degenerate bases reduces the risk of immune activation following injection into animals, which causes deleterious side effects associated with many therapeutic antisense oligonucleotides. Sequences AACG5029-065077 are antisense oligonucleotides and PCR primers used in assays to demonstrate the effects of the sequences of the invention.
       GABA receptor; gamma-amino butyric acid receptor; appetite; cognition; probe; ss.
                                             Human GABA receptor epsilon subunit DNA probe
                                                                                               AAV36324;
                                                                                                                                                                                                                                                                                                Sequence 20 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 5; Fig 1; 32pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               genes, preferably anti-apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Antisense oligonucleotides containing degenerate and/or universal bases, and modified backbone linkages is useful to target therape
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (OASI-) OASIS BIOSCIENCES INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-APR-2000; 2000WO-US09293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200061810-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Antisense oligonucleotide; RNA molecule cleavage; immune activation; bcl; protein kinase C; PKC; PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAC65053;
                                                                        12-OCT-1998
                                                                                                                       AAV36324 standard; DNA; 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-OCT-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                      18
                                                                                                                                                                                                 13 ggatgcctttgtggaact 30
                                                                                                                                                                                                                                                Local
                                                                                                                                              6
                                                                                                                                                                                                                                                                                                                                                                                                               present invention is concerned with antisense oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAACTGCAGGATGCCTTTGT 1
                                                                                                                                                                                   2000-679502/66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        bcl genes
                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Riley TA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                      (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99US-0128377.
                                                                                                                                                                                                                                                                                                  7 A; 6 C; 2 G; 3 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA;
                                                                      entry)
                                                                                                                                                                                                                                                47.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sequence #6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ВP
                                                                                                                        ВP
                                                                                                                                                                                                                                   Score 17.2; DB 21,
Pred. No. 7.8e+02;
"'~matches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  or chemoresistance genes
                                                                                                                                                                                                                                                                                                    2 other;
                                                                                                                                                                                                                                                              Length 20;
                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              therapeutic
                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                       Gaps
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RESULT
AAI79508
ID AAI7
DЬ
                                                                                                                                                                                                                                                                                                                                                                       Qy
                                                                                                                                                                                                                                                                                                                                                                                                Matches
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Antisense oligonucleotide probes 1 and 2 (see AAV36325) are based on human GABA receptor novel epsilon subunit cDNA (see AAV36319). Each was radiolabelled at the 3' end with (355)deoxyadenosine 5'-(thiotriphosphate) and used in in situ hybridisation assays to localise the epsilon subunit in monkey brain. The localisation appeared to be very restricted, residing mainly in the hypothalamus and arouate nucleus. The new GABA receptor epsilon subunit (see
(CURA-) CURAGEN CORP
                      30-NOV-1999; 99US-0168138
29-NOV-2000; 2000US-0726173
                                                           30-NOV-2000; 2000WO-US32758
                                                                                    07-JUN-2001.
                                                                                                           WO200140521-A2
                                                                                                                                                           quantitation;
                                                                                                                                                                      Human; single nucleotide polymorphism;
protein therapy; vaccine; probe; diagno
                                                                                                                                                                                                                                   09-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW61045) can be used in the screening and design of drugs which act on the GABA receptor and which may be useful e.g. for the modulation of appetite behaviours, hormonal interactions and cognition.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New isolated GABA receptor subunit, epsilon - used to develop products for the screening and design of drugs, e.g. for modulating appetite behaviours, hormonal interactions and cognition
                                                                                                                                    Homo sapiens
                                                                                                                                                                                                        Human silent SNP containing nucleic acid SEQ:6449.
                                                                                                                                                                                                                                                             AAI79508;
                                                                                                                                                                                                                                                                                   AAI79508 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 45 BP; 9 A; 13 C; 11 G; 12 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-OCT-1997;
25-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1998-322722/28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      04-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (MERI ) MERCK SHARP & DOHME LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9823742-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                 σ
                                                                                                                                                                                                                                                                                                                                                          1 cccccaactgcaggatgcctttgtg
                                                                                                                                                                                                                                                                                                             7
                                                                                                                                                                                                                                                                                                                                   Similarity 80. 20; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Page 20;
                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                        restorative therapy; polymorphic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97GB-0020995.
96GB-0024442.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97WO-GB03159
                                                                                                                                                                                                                                                                                   DNA; 51 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    37pp;
                                                                                                                                                                                                                                                                                                                                                                                                         47.2%;
80.0%;
                                                                                                                                                                      polymorphism; SNP;
probe; diagnostic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       English.
                                                                                                                                                                                                                                                                                                                                                                                             Score 17; DB Pred. No. 1.1e 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                               1.1e+03;
nes 5;
                                                                                                                                                                                                                                                                                                                                                                                                                      DB 19;
                                                                                                                                                                     genome;
                                                                                                                                                           ds
                                                                                                                                                                                                                                                                                                                                                                                                                     Length 45
                                                                                                                                                                    ; gene therapy;
detection;
                                                                                                                                                                                                                                                                                                                                                                                             0;
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RESULT
AAI79509
XHXAX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cc polynucleotide sequences. The sequences can be used in gene and protein contrary, and in vaccine production. (1) and the polypeptides encoded by therapy, and in vaccine production. (1) and the polypeptides encoded by ct them may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate expression of polymorphic polypeptides. CC or example, (1) may be used to treat disorders by rectifying mutations control of elections in a patient's genome that affect the activity of colypeptides by expressing inactive proteins or to supplement the cc patients own production of polypeptide. Additionally, (1) and its cc complementary sequences may also be used as DNA probes in diagnostic cassays to detect and quantitate the presence of similar nucleic acids in samples, and therefore which patients may be in need of restorative therapy. The polypeptides encoded by (1) may be used as antigens in the crowdies may also be used to down regulate expression and activity. The antibodies may also be used as diagnostic agents for detecting the presence of polymorphic polypeptides. The antibodies may also be used as diagnostic agents for detecting the presence of polymorphic polypeptides in samples.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                              Shimkets RA,
                                                                                                             30-NOV-1999; 99US-0168138.
29-NOV-2000; 2000US-0726173.
                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                 quantitation;
                                                                                 (CURA-) CURAGEN CORP.
                                                                                                                                                                        30-NOV-2000; 2000WO-US32758
                                                                                                                                                                                                             07-JUN-2001.
                                                                                                                                                                                                                                                                                                                                     protein therapy;
                                                                                                                                                                                                                                                                                                                                                    Human; single nucleotide polymorphism; SNP; genome;
                                                                                                                                                                                                                                                                                                                                                                                     Human silent SNP containing nucleic acid SEQ:6450.
                                                                                                                                                                                                                                                                                                                                                                                                                          09-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAI79509;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAI79509 standard; DNA; 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAM53114 to AAM53329 represent peptides related to human polynucleotide sequences. The sequences can be used in ge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AA173060 to AA179867 represent isolated human polymorphic polynucleotide sequences (I), which contain single nucleotide polymorphisms (SNPs).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 2481; 2653pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shimkets
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Polymorphic nucleic acid sequences, useful in genetic testing and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10 ccaccaactgctcgcatcctttgacgacctcgtcgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 cccccaactgcaggatgcctttgtggaactgtacgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity 66.7
24; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             51 BP; 10 A; 18 C; 12 G; 11 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RA,
                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                Leach M;
                                                                                                                                                                                                                                                                                                                 restorative therapy; polymorphic; ds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Leach M;
                                                                                                                                                                                                                                                                                                                                     vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         46.78;
                                                                                                                                                                                                                                                                                                                                     probe; diagnostic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ΒP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 16.8; DB 22;
Pred. No. 1.4e+03;
0; Mismatches 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      45
                                                                                                                                                                                                                                                                                                                                     assay;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                     detection;
                                                                                                                                                                                                                                                                                                                                                  gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    polymorphic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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0;

WPI; 2001-356160/37

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RESULT
AAA72693
ID AAA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      therapy, and in vaccine production. (I) and the polypeptides encoded by them may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate expression of polymorphic polypeptides. CC associated with inappropriate expression of polymorphic polypeptides. CC ror example, (I) may be used to treat disorders by rectifying mutations are deletions in a patient's genome that affect the activity of complements own production of polypeptide. Additionally, (I) and its complementary sequences may also be used as DNA probes in diagnostic complementary sequences may also be used as DNA probes in diagnostic complementary sequences may also be used as DNA probes in the complex, and therefore which patients may be in need of restorative therapy. The polypeptides encoded by (I) may be used as antigens in the correction of antibodies specific for polymorphic polypeptides. The correction of antibodies specific for polymorphic polypeptides. The correction of antibodies specific for polymorphic polypeptides. The correction of antibodies appears as diagnostic agents for detecting the correction of antibodies appears as diagnostic agents for detecting the correction of antibodies appears as diagnostic agents for detecting the corrections.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequences (I), which contain single nucleotide polymorphisms (SNPs).
AAM53114 to AAM53329 represent peptides related to human polymorphic
polynucleotide sequences. The sequences can be used in gene and protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAI73060 to AAI79867 represent isolated human polymorphic polynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 2481; 2653pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Polymorphic nucleic acid sequences, useful in genetic testing and therapy \boldsymbol{\cdot}
                                                                                                                                    WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                Clostridium acetobutylicum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PCR primer used for Crt gene isolation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-DEC-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAA72693 standard; DNA; 47 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 51 BP; 10 A; 19 C; 12 G; 10 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        presence of polymorphic polypeptides in samples
                                                                                                                                                                                                                                                                                                                                                                         WO200043523-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                      PCR primer; Crt; PHBH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Polyhydroxyalkanoate; PHA;
                                                                          Stable and efficient biological production of polyhydroxyalkanoates (PHA) containing 3-hydroxyhexanoate, comprising synthesis in transgenic
                                                                                                                                                                           Madison L,
                                                                                                                                                                                                                                                        22-JAN-1999;
                                                                                                                                                                                                                                                                                             21-JAN-2000; 2000WO-US01526
                                                                                                                                                                                                                                                                                                                                  27-JUL-2000.
              Example 3; Page 22;
                                                     organisms with transgene(s) encoding enzymes e.g. PHA polymerase
                                                                                                                                                                                                              (META-) METABOLIX INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 cccccaactgcaggatgcctttgtggaactgtacgg 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ccaccaactgctcgcaccctttgacgacctcgtcgg 45
                                                                                                                                    2000-505840/45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        container; nappy
                                                                                                                                                                           Huisman GW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                        99US-0235875
                48pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      46.7%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ss.
                                                                                                                                                                           Peoples OF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sheet;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        polyhydroxybutyrate;
sheet; pen; golf tee;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 16.8; DB 22
Pred. No. 1.4e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PHB; moulding; bottle; tampon applicator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This invention relates to methods for the production of polyhydroxyalkanoates (PHAs) containing 3-hydroxyhexanoate. The method comprises synthesising the PHA in a transgenic organism with at least 1 transgene encoding an enzyme. The enzyme is chosen from polyhydroxybutyrate (PHB) polymerase, PHA polymerase, beta-ketothiolase, beta-ketoacyl-coenzyme A (CoA) reductase, D-specific enoyl-CoA hydratase, crotonase, butyryl-CoA dehydrogenase and 3-hydroxybutyryl-CoA dehydrogenase integrated into the chromosome. The method is used for the biological production of polyhydroxyalkanoates containing 3-hydroxyhexanoate, which are useful in moulding applications
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   particularly consumer packaging items such as bottles, cosmetic containers, nappy sheets, pens, golf tees and personal items such as moulded tampon applicators. They provide genetically engineered systems for the production of polyhydroxyalkanoates containing 3-hydroxyhexanoates. They are used to provide useful mutations that can be used to produce 3-hydroxyhexanoic monomers from more economic feedstocks, such as butyrate or butanol. They are used to provide genes suitable for converting cellular metabolites derived from carbohydrate feedstocks to butyryl-CoA for the production of 3-hydroxyhexanoate co-monomers. The present sequence represents a PCR primer used to isolate
                                                                                                                                                                                                                                                                                                                                                                                                                       Immunologically functional molecule; immune system; immunomodulation; glycosylation; fucose; N-acetylglucosamine; cancer; circulatory disease; viral infection; bacterial infection; allergy; autoimmune disease; inflammation; antibody; Chinese hamster; rat; beta-actin PCR primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Chinese hamster/rat beta-actin PCR primer, SEQ ID NO:6.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 47
                                                                                                                                                                                                                                                                                                                                                                                    Cricetulus griseus.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the Crt gene. The PCR product is used in a method
                                                                                                                                                                                                                                                                07-APR-2000;
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                                                                                                                                                        Hanai N,
                                                                                                                                                                                                                                                                                                   19-OCT-2000
                                                                                                     WPI; 2000-665129/64.
                                                                                                                                                                                          (KYOW ) KYOWA HAKKO KOGYO KK.
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                                                                                                                                                          Nakamura
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                                                                                                                                          Kanda
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71.08;
                                                                                                                                          Shoji E,
Yamane N,
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Pred. No. 1
                                                                                                                                          Yamasaki M,
Anazawa H;
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                                                                                                                                                            Uchida K,
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Control of activity of antibodies and other immunologically functional molecules by addition or removal of fucose from sugar chain for diagnosis and treatment of cancer, allergy and other diseases  $\cdot$ 

Example 8; Page 74; 81pp; Japanese

SS

Sequence 20 BP; 5 A; 6 C; 6

G; 3 T; 0 other;

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Best Local :
   ischaemia/reperfusion injury in the liver, improve organ preservation, cytoprotect endothelial cells or pancreatic islet cells during cold preservation, or enhance or prolong the expression of a transgene. The co-expression of Bcl-2 with a transgene mediated a significant reduction in apoptosis and necrosis following adenovirus mediated gene transfer, and an enhancement of transgene expression (up to 2 log).
                                                                                                                      This sequence represents a PCR primer for the human Bcl-2 gene. The invention relates to an adenoviral vector encoding an anti-apoptotic
                                                                                                                                                                                                        Adenoviral vector encoding anti-apoptotic Bcl-2 gene useful for cytoprotection and in gene therapy - \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to a method for controlling the activity of an immunologically functional molecule (e.g., an antibody) where the control is effected by the presence or absence of fucose bound to an N-acetylglucosamine residue at the reducing end of the sugar chain on the immunologically functional molecule. The invention also relates to methods for the diagnosis, prevention or treatment of diseases which involve the modified immunologically functional molecule, and agents which stimulate the activity of an immunologically functional molecule. The methods of the invention are used for the diagnosis, treatment and prevention of a broad range of diseases including cancer, circulatory disease, viral or bacterial infection, allergy, autoimmune disease and inflammation. The present sequence represents a Chinese hamster/rat beta-actin PCR primer used in an exemplification of the invention.
                                                                                                                                                                            Example 9; Page 26; 89pp; English.
                                                                                                                                                                                                                                                               WPI; 2000-023269/02
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                                                                                                                                                                                                                                                                                                                                (UABR-) UAB RES FOUND
                                                                                                                                                                                                                                                                                                                                                               29-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ischaemia; reperfusion injury; liver; organ preservation;
endothelial cell cryoprotection; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bcl-2; human; PCR primer; adenoviral vector; anti-apoptotic gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PCR primer
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAZ37381 standard; DNA;
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                                                                                                       gene. The adenoviral vector may be used to reduce
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85.7%;
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Pred. No. 2
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Best Local 9
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                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New mutant Fc receptor polypeptide(s) - have amino acid changes to improve characteristics, e.g. half life, used partic in diagnosis treatment of auto-immune diseases \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^{\infty} \frac{1}{2} \int_{-\infty}^
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                                        11 caggatgcctttgtggaac
        IJ
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                                                                                                                                                                                                                                                                                                                                            A; 11 C; 8 G; 9 T; 0 other;
                                                                                                                                                                                            43.9%;
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    31
                                                                                                                                                    0;
                                                                                                                                                                                                                        Score
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Pred. No.
                                                                                                                                                                                            Pred. No.
                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                        15.8; DE No. 3.3e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                McKenzie IFC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 21;
2.4e+03;
                                                                                                                                                                                                                            DB 17;
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                                                                                                                                                                                                                            Length 34;
                                                                                                                                                    Indels
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AAN90551 standard; cDNA; 36 BP

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AAC90375
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Best Local
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        METH; metalloprotease; thrombospondin; angiogenesis inhibition; cancer therapy; benign tumour; ocular angiogenic disease; PCR primer; rheumatoid arthritis; psoriasis; wound healing; endometriosis; vasculogenesis; granulation; hypertrophic scar; nonunion fracture; scleroderma, trachoma; vascular adhesion; myocardial angiogenesis; scleroderma, trachoma; vascular adhesion; arteriovenous malformation; coronary collateral; cerebral collateral, arteriovenous malformation;
                                                                                                                                                                                                                                                                                                                                                      The mutant is adapted for predictable rearrangement or deletion by altering 2 or more pre-existing restriction sites to create sites susceptible to cleavage by 1 or more of AvrII, NheI, SpeI and XbaI. The sites are found at the C-terminus of the Kringle 2 domain. See also AAP91270.
                                                                                            pC4Fc:METH1
                                                                                                                  19-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Key
old_sequence
                                                                                                                                           AAC90375;
                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                           Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                             Rearranged tissue plasminogen activators - prepd. by altering the DNA sequence to introduce AvrII, NheI, SpeI or XbaI cleavage sites.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO8907146-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         old_sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tissue plasminogen activator; mutant; fibrinolysis; KC2 (T255P: W259R:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tissue plasminogen activator mutant KC2 (T255P: W256R: N451Q).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13-DEC-1989
   ischaemic
                                                                                                                                                                 AAC90375
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DB; AAP91270.
                                                                                                                                                                                                                        aaccgcaggctgcctagggagtactgt 33
                                                                                                                                                                                                                                                                                                                                                                                                                        11; page 58; 77pp; English.
                                                                                                                                                                                                                                                                        20;
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                                                                                                                                                                 standard;
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                                                                                            PCR primer #2.
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replace(21..22, "")
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   Osler-Webber
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granulation;
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AAD24317/ ID AAD2

4317/c AAD24317

standard;

DNA;

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AAD24317;

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Matches 20; Conserv
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13-AUG-1999;
22-DEC-1999;
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                                                                                                                                                                                                                                                                  The present invention relates to human METH1 and METH2, (ME for metalloprotease and TH for thrombospondin; see AAB50002 and AAB50003). The present invention. ME can be used for inhibiting angiogenesis in an individual, and for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            plaque neovascularisation; telangiectasia; haemophiliac joint; angiofibroma; fibromuscular dysplasia; expressed sequence tag; Crohn's disease; atherosclerosis; birth control; ss.
                                                                                                                                                                                                                                          treating cancer, benign tumours, an ocular angiogenic disease, rheumatoid arthritis, psoriasis, delayed wound healing, endome
                                                                                                                                                                                                                                                                                                                                                         METH1 and METH2 polynucleotides and encoded polypeptides, inhibit angiogensis in the treatment of disorders such as rheumatoid arthritis and psoriasis -
                                                                                                               Sequence 43
                                                                                                                                                   fibromuscular dysplasia, wound granulation, Crohn's disease atherosclerosis. METH can also be used in birth control. MET
                                                                                                                                                                                                                                                                                                                                  Example 52; Page 479;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Iruela-Arispe L, Hasting
Fornwald JA, Terrett JA;
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20-JUL-1999;
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              aactgcaggatgcctttgtggaactgt 32
aactgcattctgccattgtgcaaaagt 38
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FORNWALD J A.
                                                                                                                                        in diagnostic methods for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TERRETT J A.
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SMITHKLINE BEECHAM CORP.
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                                                                                                               BP; 11 A; 10 C;
                                                  Conservative
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99US-0373658.
99US-0171503.
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99US-0144882
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                                                             43.98;
74.18;
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                                                                                                                                       the prognosis
                                                              15.8;
No. 3.
                                                                                                               T; 0 other;
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                                                                                                                                       of cancer
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                                                 Gaps
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                                                                                                                                                                                                         The present invention relates to a method for monitoring acceptance of a CC transplant or an autoimmune disease in a manmal. The method comprising CC determining the amount of at least one of Stat4 (signal transducer and CC activator of transcription), Stat6, SOCS1 (suppressor of cytokine continued of the signalling) or SOCS3 mRNA or protein in a sample of the transplant, taken CC from the host or an affected tissue sample. Stats are activated by CC receptor-associated Janus kinases (Jaks) which include Jak1, Jak2, Tyk2, CC Jak3. The method is used to determine whether acceptance of a transplant CC lupus erythematosus, glomerulonephritis, rheumatoid arthritis, Wegener's CC granulomatosis, chronic active hepatitis, rheumatoid arthritis, wegener's CC sclerosis, myasthenia gravis, haemolytic anaemia, nephrotic syndrome, CC disease and vascuiltisis are being treated successfully and may be used considered treatment regimes. The present sequence is human Stat3
                                                                        Matches
                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; SOCS; suppressor of cytokine signalling; autoimmune disorder; Jak; Janus kinase; signal transducer and activator of transcription; Stat; transplant acceptance; systemic lupus erythematosus; glomerulonephritis; rheumatoid arthritis; Wegener's granulomatosis; chronic active hepatitis; atopic dermatitis; multiple sclerosis; myasthenia gravis; vasculitisis; Crohn's disease; haemolytic anamania; nephrotic syndrome; dermatological; diabetes mellitus; thyroiditis; inflammatory bowel disease; nephrotropic; immunosuppressive; antiinflammatory; antirheumatic; antiarthritic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Monitoring transplant acceptance or autoimmune disease, useful e.g. for assessing therapy, comprises measuring levels of Stat or their
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13-APR-2001; 2001WO-US12131
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Page 57; 218pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2002-034368/04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hancock WW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-APR-2000; 2000US-0549654.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        hepatotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    inhibitors
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                                                                                                                                                           Sequence 31 BP; 5 A; 11 C; 7 G; 8 T; 0 other;
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                  ctgcaggatgcctttgtggaac
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                                                                        18;
                                                                                                                                                                                            treatment
DNA, used
                                                                        Conservative
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                                                                                                                                                                                              in the invention.
                                                                                        43.3%;
81.8%;
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                                                                      0;
                                                                                        Score 15.6;
Pred. No. 3.
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                                                                                    .9e+03;
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                                                                                                       24;
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Search completed: June 28, 2002, 22:40:10 Job time: 8086 sec

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Minimum DB seq
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Listing first 45 summaries
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     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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                                                         length: 0
length: 75
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36
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/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /cgn2_6/ptodata/1/ina/backfiles1.seq:*
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     DB
             US-08-217-082A-6
US-09-08-465-485A-6
US-09-080-285-6
US-07-936-421-16
US-08-465-485A-5
US-08-465-485A-5
US-09-080-285-5
US-09-080-285-5
US-09-053-871A-6
US-09-053-871A-6
US-09-053-871A-6
US-09-277-020-4
US-09-277-020-4
US-09-277-020-4
US-09-277-020-4
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US-09-277-020-4
US-09-277-020-4
US-08-275-684-1
US-08-68-56A-47
US-08-68-56A-47
US-08-68-56A-47
US-08-68-56A-47
US-08-68-56A-47
US-08-68-56A-47
US-08-68-56A-47
US-08-68-56A-47
US-08-68-56A-47
US-08-68-56A-47
US-08-68-56A-47
US-08-68-58-68-7
US-08-68-362-240A-47
US-08-98-362-240A-47
US-08-98-388-10
US-08-718-388-10
US-08-718-388-10
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Sequence 6, App.

Sequence 16, App.

Sequence 5, Appli

Sequence 5, Appli

Sequence 5, Appli

Tuence 5, Appli

Juence 4, Appli

Juence 5, Appli

Juence 5, Appli

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   Sequence
47, Appl
47, Appl
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11, Appli
10, Appl
25, Appl
25, Appl
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## ALIGNMENTS

RESULT 1 US-08-217-082A-6

Sequence 6, Application US/08217082A Patent No. 5734033
GENERAL INFORMATION:
APPLICANT: Reed, John

TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES TITLE OF INVENTION: GROWTH OF CELLS EXPRESSING

FOR INHIBITING THE THE HUMAN BCL-2 GENE

NUMBER OF SEQUENCES:

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; ANTI-SENSE: US-08-217-082A-6
                                                                                                                      TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 6
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC COMPATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: 4. STREET: 5 San Jose CITY: San Jose California
                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FEB 1992
PRIOR APPLICATION DATA:
APPLICATION UNBER: US 07/288,692
FILING DATE: 22-DEC-1988
ATTORNEY/ACENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 435
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 07/840,716
                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Relicuration APPLICATION NUMBER: US
                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                    MOLECULE TYPE:
                                                       TOPOLOGY: 111
                                                                                      TYPE: nucleic acid
                                                                                                                                                                                                                                         NAME: Fortney, Andrew REGISTRATION NUMBER: (
                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT ADDRESSEE: P.C.
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                   NO
                                    DNA (genomic)
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                                                                      single
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RESULT 3
US-09-080-285-6
; Sequence 6, Application US/09080285
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                                                                                                                                              Matches
                                                                                                                                                                           Query Match
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                 TELEFAX: (408) 436-207
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 07/
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/
FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                TOPOLOGY: 1i
MOLECULE TYPE:
ANTI-SENSE: NO
                                                                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 33:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: 514
PRIOR APPLICATION NUMBER: US 08/124,256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 29
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                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                                                                   NAME: FORTNEY, Andrew D. REGISTRATION NUMBER: 34,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STATE: Vi-
                                                                                                                                                                                                                                                                         STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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STREET: 1755 S. Jefferson Davis Hwy., Suite 400
                                                                                                                                                                                                                                                                                                     LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                     NAME:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE:
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                                                                                                     1 cccccaactgcaggatgcctttgtggaactgtacgg 36
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                                                                                      CCCCCAACTGCAGGATGCCTTTGTGGAACTGTACGG 36
                                                                                                                                             l Similarity 100.
36; Conservative
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                                                                                                                                                                                                                                                                                                    36 base pairs
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                                                                                                                                                                                                                                  NO
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tive 0;
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                                                                                                                                             Score 36; DB Pred. No. 2.9 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 36; DB 1;
Pred. No. 2.9e-06;
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                                                                                                                                             . 2.9e-06;
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                                                                                                                                                                          DB 2;
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                                                                                                                                                                       Length 36;
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                                                                                                                                                  Sequence 16, Application US/07936421 Patent No. 5750390
                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 36; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No. 6040181
               APPLICANT: James D. Thompson APPLICANT: Kenneth G. Draper TITLE OF INVENTION: METHOD AND TITLE OF INVENTION: TREATMENT TITLE OF INVENTION: BY EXPRESS TITLE OF INVENTION: GENE
                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (408) 436-2075 INFORMATION FOR SEQ ID NO:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 36 base pairs
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APPLICATION NUMBER: US 08/465,485
FILING DATE: 05-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/080,285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
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APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: Regulation of bcl-2 Gene Expression NUMBER OF SEQUENCES: 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS: si
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Fortney, Andrew REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 0: FILING DATE: 21-FEB-1992
                                                                                                                                                                                                                                                                                     1 cccccaactgcaggatgcctttgtggaactgtacgg 36
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: FILING DATE: 22-DE0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
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CITY: Arlington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: OBLO
ADDRESSEE: P.C.
STREET: 1755 S.
                                                                                                                                                                                                                                                                 CCCCCAACTGCAGGATGCCTTTGTGGAACTGTACGG 36
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SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA (genomic)
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                                 METHOD AND REAGENT FOR TREATMENT OF DISEASES CAUSED BY EXPRESSION OF THE BCL-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US 07/840,716
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Pred. No. 2.9e-06;
                                                                                                                                                                                                                                                                                                                                             Mismatches
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CORRESPONDENCE ADDRESS:

ADDRESSEE:

Lyon & Lyon

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Best Local Similarity
Matches 17; Conserva
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                                                                                                                                                                                                                                                                                                                                                                              Sequence 5, Application US/08217082A Patent No. 5734033 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: 32,327
REFERENCE/DOCKET NUMBER: 19;
TELECOMMUNICATION INFORMATION:
TELEPHONE: (213) 489-1600
                                                                                                                                                                                                                                                                                             APPLICANT: Reed, John
TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES FOR INHIBITING THE
TITLE OF INVENTION: GROWTH OF CELLS EXPRESSING THE HUMAN BCL-2 GENE
NUMBER OF SEQUENCES: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM: MEDIUM TYPE: 3.5" Diskette, 1.44 Mb storage
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CITY: Los Angeles
STATE: California
                                                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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SOFTWARE: WordPerfect (Version 5.1)
APPLICATION NUMBER: US/08/217,082A FILING DATE: 24-MAR-1994 CLASSIFICATION: 435
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TOPOLOGY: lir
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TELEX: 67-3510
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                                                                                                                                                                COUNTRY: UZIP: 95110
                                                                                                                                                                                                                   STREET: 224 Air
CITY: San Jose
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                                                                                                                          MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                 U.S.A.
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70.8%;
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Pred. No. 0.
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APPLICANT: Reed,
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                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0
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LENGTH: 20 base pairs
TYPE: nucleic acid
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
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NIMBER: US 07/840,716
                              ATTORNEY/AGENT INFORMATION:
NAME: FORTNEY, Andrew D.
REGISTRATION NUMBER: 34,
                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
FILING DATE: 22-DEC-1988
                                                                                                                                          FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FEB-1992
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APPLICATION NUMBER:
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TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/O FILING DATE: 05-JUN-1995 CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                  STATE: Virginia COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: 1755 S.
CITY: Arlington
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                  REFERENCE/DOCKET NUMBER:
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TD NO: 5:
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                                                                                                                                                                                                                  US 08/124,256
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                                                                                                          US 07/288,692
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                              34,600
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                 3335-070-55 CONT
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US-09-080-285-5/c

; Sequence 5, Application US/09080285

; Patent No. 6040181
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Best Local Similarity
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                                                                                                TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 5:
                                                                                                                             NAME: FOITHEY, Andrew D.
REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 335-070-55 CONT
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 05-JUN-
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08
FILING DATE: 05-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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                                                                                SEQUENCE CHARACTERISTICS:
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                 TOPOLOGY:
                                                                                                                                                                                                                                 APPLICATION NUMBER: US 07/288,692 FILING DATE: 22-DEC-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET:
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                                STRANDEDNESS:
                                                               LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
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                           H: 20 base pairs
nucleic acid
DEDNESS: single
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                  linear
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DNA (genomic)
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Best Local Similarity
Watches 20; Conserve
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                               SOFTWARE: P
SEQ ID NO 5
LENGTH: 31
TYPE: DNA
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APPLICANT:
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APPLICANT: Schmidt, Ann Marie
TITLE OF INVENTION: METHODS FOR TREATING AN ISCHEMIC DISORDER AND IMPROVING
TITLE OF INVENTION: STROKE OUTCOME
FILE REFERENCE: 51917-B
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TITLE OF INVENTION: METHODS FOR TREATING AN
TITLE OF INVENTION: STROKE OUTCOME
FILE REFERENCE: 51917-B
                                                                                              CURRENT APPLICATION NUMBER: US/09/053,871A
CURRENT FILING DATE: 1998-04-01
NUMBER OF SEQ ID NOS: 22
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OTHER INFORMATION: Oligonucleotides for producing Factor
OTHER INFORMATION: NNN=the complement to a DNA codon for any one of
OTHER INFORMATION: the standard amino acids other than serine.
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               ORGANISM: Artificial Sequence
FEATURE:
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19; Conser
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67.9%;
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RESULT 11
US-09-288-461-83/c
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Best Local Similarity
Matches 19; Conserv
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LENGTH: 32
TYPE: DNA
ORGANISM: Artificial Sequence
                                                                            SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 83
LENGTH: 20
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                                                                                                                                                                                                                                                                                                          Sequence 83, Application US/09288461 Patent No. 6159694
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                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/288,461
CURRENT FILING DATE: 1999-04-08
NUMBER OF SEQ ID NOS: 107
                                                                                                                                                                                                    TITLE OF INVENTION: Antisense Oligonucleotide Modulation of STAT3 TITLE OF INVENTION: Expression FILE REFERENCE: ISPH-0338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILE REFERENCE: 51917-B
CURRENT APPLICATION NUMBER: US/09/053,871A
CURRENT FILING DATE: 1998-04-01
NUMBER OF SEQ ID NOS: 22
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APPLICANT: Schmidt, Ann Marie
TITLE OF INVENTION: METHODS FOR TREATING AN ISCHEMIC DISORDER AND IMPROVING
TITLE OF INVENTION: STROKE OUTCOME
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                                                                                                                                                                                                                                                                 APPLICANT: Karras, James G.
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OTHER INFORMATION:
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OTHER INFORMATION: Synthetic Sequence
                                      ORGANISM: Artificial Sequence
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19; Conserv
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Pred. No. 6.7e+02;
0; Mismatches 9;
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EARLIER APPLICATION NUMBER: 09/167,921
EARLIER FILING DATE: 1998-10-07
NUMBER OF SEQ ID NOS: 65
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 46
LENGTH: 20
TYPE: DNA
ORGANISM: Artificial Sequence
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US-09-167-921-35/c
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                                                                                              ; OTHER INFORMATION: Description of Artificial Sequence:Synthetic US-09-277-020-46
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US-09-277-020-46/c
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LENGTH: 20
TYPE: DNA
Query Match
Best Local Similarity 85.0
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Bennett, C. Frank
APPLICANT: Bennett, C. Frank
TITLE OF INVENTION: Alteration of Cellular Behavior by Antisense Modulation
TITLE OF INVENTION: of mRNA Processing
FILE REFERENCE: ISPH-0339
                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 46, Application US/09277020 Patent No. 6210892
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Best Local Similarity
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APPLICANT: Dean, Nicholas M.
APPLICANT: Monia, Brett P.
APPLICANT: Nickoloff, Brian J.
APPLICANT: Zhang, QingQing
TITLE OF INVENTION: Antisense Modulation of bcl-x Expression
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                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/277,020 CURRENT FILING DATE: 1999-03-26
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       Score 15.2; DB 4;
Pred. No. 7.3e+02;
0; Mismatches 3;
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US-09-323-743-35/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; OTHER INFORMATION: Synthetic US-09-323-743-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 35, Application US/09323743 Patent No. 6214986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 87,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT FILING DATE: 1999-06-01
EARLIER APPLICATION NUMBER: 09/277,020
EARLIER FILING DATE: 1998-03-26
EARLIER APPLICATION NUMBER: 09/167,921
EARLIER FILING DATE: 1998-10-07
NUMBER OF SEQ ID NOS: 66
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Nickoloff, Brian J.
APPLICANT: Zhang, QingQing
TITLE OF INVENTION: Antisense Modulation of bcl-x Expression
FILE REFERENCE: ISPH-0368
CURRENT APPLICATION NUMBER: US/09/323,743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Bennett, C. Frank
APPLICANT: Dean, Nicholas M.
APPLICANT: Monia, Brett P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/513,974B
FILING DATE: 14-SEP-1995
                                                                                                            COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ENGTH:
                                                                                                                                                                                                                                                                                                       APPLICANT: Ohtaki, Tetsuya
APPLICANT: Fukusumi, Shoji
APPLICANT: Ohtaki, Shoji
TITLE OF INVENTION: G PROTEIN COUPLED RECEPTOR PROTEIN,
TITLE OF INVENTION: PRODUCTION, AND USE THEREOF
                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 3
                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Hosoya, Masaki
APPLICANT: Fujii, Ryo
                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
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                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
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les 17; Conserv
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                                                                                                                                                                                                                                 130 Water Street
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85.0%;
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Pred. No. 7.3e+02;
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Search completed: June 28, 2002, 22:16:44
Job time: 8270 sec

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APPLICATION NUMBER: JP 7-
FTLING DATE: 16-MAR-1995
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APPLICATION NUMBER: JP 6:
FILING DATE: 11-AUG-1945
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/:
FILING DATE: 10-AUG-1995
                                                                                                                                                                          MOLECULE TYPE:
                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 27 base pairs
                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION: TELEPHONE: 617-523-3400
                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 11-AUG-1994 ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER:
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APPLICATION NUMBER: JP 6:
FILING DATE: 11-AUG-1994
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                                                                                                                                                                                        STRANDEDNESS: double TOPOLOGY: linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: JP 6-236357
                                                                                                                                                                                                                           TYPE: nucleic acid
                                                                   Local Similarity les 17; Conserv
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6 CATCTGCTGGATGCCTTTCT 25
                                 5 caactgcaggatgcctttgt 24
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                                                                     Conservative
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                                                                     Score 15.2; DB 3;
Pred. No. 7.8e+02;
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Listing first 45 summaries
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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Gapop 10.0 , Gapext 1.0
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111.226 Million cell updates/sec
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## ALIGNMENTS

RESULT 1 AR052603/c LOCUS LOCUS LOCUS DEFINITION Sequence 1 from patent US 5831066. ACCESSION AR052603: VERSION AR052603.1 GI:5975967 KEYWORDS SOURCE ORGANISM Unknown. ORGANISM Unclassified. 1 (bases 1 to 20) AUTHORS REGULATION of bc1-2 gene expression JOURNAL FEATURES SOURCE NOTIFIE AUTHORS FEATURES SOURCE ORIGIN  BASE COUNT 2 a 10 c 4 g 4 t  Ouery Match Best Local Similarity 100.0%; Pred. No. 50; Engliarity 100.0%; Pred. No. 50;																			
R052603 R052603 R052603 R052603.1 GI:5975967 R05260	Query Mat Best Loca	ORIGIN		source	FEATURES	JOURNAL	TITLE	AUTHORS	REFERENCE		ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION	DEFINITION	LOCUS	AR052603/c	RESULT 1
DNA linear	ch   Similarity	2	^or	<u>.</u>	Loc	Patent: US 5	Regulation o	Reed, J.C.	1 (bases 1	Unclassified	Unknown.	Unknown.	•		AR052603	Sequence 1 f.	AR052603		
DNA linear		TO C	ganism="un	. 20	ation/Qual	831066-A 1	f bcl-2 ge		to 20)	•				GI:5975967		rom patent			
DNA linear	Score 20; Pred. No.	± 2	known"		ifiers	03-NOV-19	ne express									US 583106	20 bp		
	DB 6; 50;		+			98;	ion									6.	DNA		
	Length 20;																linear		
29-SEP-																	PAT		
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Result No.

Score

Query Match Length DB

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Description

SUMMARIES

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DEFINITION
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                           RESULT
AR176023
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AUTHORS
TITLE
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AR176022/c
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KEYWORDS
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Sequence
AR176023
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Farrell, N. and Kloster, M.
High affinity DNA binding compounds as
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                 AR176023
                                                                                                                                                                                                                                                                Unknown
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Sequence 7 from patent US
AR052609
                                                                                                                                                                                                      technology
Patent: US 6310047-A 1 30-OCT-2001;
                                                                                                                                                                                                                                                                           Unknown.
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      2 from patent US
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Sequence 2 from Patent W00159156.
AX211670 AX211670.1 GI:15523902
artificial sequence.
1 (bases 1 to 20)
Barenholz, Y., Hirsch
                                    synthetic construct. synthetic construct
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1 (bases 1 to 20)

Barenholz, Y., Hirsch-Lerner, D., Cohen, R., Dagan, A. Detection of binding of charged species using photential-sensitive probes Patent: WO 0159156-A, 1 16-AUG-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                      synthetic construct. synthetic construct
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Farrell, N. and Kloster, M.
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Patent: WO 0159156-A 2 16-AUG-2001;
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Sequence 1 from Patent WO0160998.
AX277461
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Board of Regents, The University of Texas System Location/Qualifiers
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                                  Antisense oligonucleotides inhibiting human Patent: US 5734033-A 1 31-MAR-1998;
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                                                                                                                                                                                                          unidentified
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Unknown
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Patent: JP 2001502172-A 1 20-FEB-2001;
BOARD OF REGENTS THE UNIVERSITY OF TEXAS SYSTEM
OS Unidentified
                                            1 (bases 1 to 18)
Tormo,M., Tara,A.M., Berestein,G.L. and Mcdonnel,T.J.
Thibition of Bcl-2 protein expression by liposomal antisense
                                                                                                                                                                                                                                                                                                                 l Similarity
19; Conserva
                                                                                                      unidentified
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JP 2001502172-A/1.
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                                                                                                                                                                    oligodeoxynucleotides.
                                                                                                                                                                               Inhibition of Bcl-2 protein expression
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Universitaet Zuerich (CH)
Location/Qualifiers
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1 (bases 1 to 20)

Zangemeister-Wittke,U., Luedke,G. and Huesken,D.
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Sequence 7 from Patent WO0066724.
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PD 20-FEB-2001
PF 03-OCT-1997 JP 1998516985
PR 04-OCT-1996 US 08/726211
PI MAR TORMO, ANNA M TARA, GABRIEL LOPEZ BERESTEIN, PI T MCDONNEL
PC A61K9/127, A61K31/70, C07H21/04, C12N15/00
CC Strandedness: Single;
CC Topology: Linear;
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Maximum Match 100%
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1: /cgn2_6/ptodata/1,

2: /sgn2_6/ptodata/1,

3: /cgn2_6/ptodata/1,

4: /cgn2_6/ptodata/1,

5: /cgn2_6/ptodata/1,

6: /cgn2_6/ptodata/1,
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/cgn2_6/ptodata/1/ina/5A_COMB.seq:*
/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
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61.0	61.0	61.0	62.0	63.0	64.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0	65.0
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ω	ß	4	4	4	w	4	6	4	4	4	4	4	4	w	w	ω	ω
US-08-816-346-52	PCT-US94-10257A-37	US-09-485-636-25	US-08-358-627F-1	US-09-272-496-5	US-09-418-640-84	US-09-082-649B-60	5276019-8	US-09-078-954-14	US-08-960-774-45	US-09-286-098-104	US-09-286-098-59	US-09-030-701-27	US-08-738-652-55	US-09-118-220-1	US-09-249-730-218	US-09-080-285-24	US-09-080-285-17
Sequence 52, Appl	Sequence 37, Appl	Sequence 25, Appl	Sequence 1, Appli	Sequence 5, Appli	Sequence 84, Appl	Sequence 60, Appl	Patent No. 5276019	Sequence 14, Appl	Sequence 45, Appl	Sequence 104, App	Sequence 59, Appl	Sequence 27, Appl	Sequence 55, Appl	Sequence 1, Appli	Sequence 218, App	Sequence 24, Appl	Sequence 17, Appl

# ALIGNMENTS

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RESULT 1
US-08-217-082A-1/c
; ANTI-SENSE: US-08-217-082A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1, Application US/08217082A Patent No. 5734033 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/288,692
FILING DATE: 22-DEC-1988
ATTORNEY/ACENT INFORMATION:
                                                                                                                                                                               TELEFAX: (408) 436-2075 INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOTTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Reed, John
TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES
TITLE OF INVENTION: GROWTH OF CELLS EXPRESSING
NUMBER OF SEQUENCES: 17
                                   TOPOLOGY: linear
MOLECULE TYPE: other nucleic
DESCRIPTION: Synthetic DNA
                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 20 base pairs
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                                                                                                                                                                                                                                                                             NAME: Fortney, Andrew REGISTRATION NUMBER: 3
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US-08-465-485A-1/c ; Sequence 1, Application US/08465485A
                              RESULT
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                              TELEFAX: (408) 436-2075 INFORMATION FOR SEQ ID NO: 7:
                                                                                                                                                                                                                                                       MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                        TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 21-FEB-1992 PRIOR APPLICATION DATA: APPLICATION NUMBER: US 0
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APPLICATION NUMBER: U
FILING DATE: 21-FEB-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES TITLE OF INVENTION: GROWTH OF CELLS EXPRESSING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC
OPERATING SYSTEM:
SOFTWARE: PatentI
                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                         DESCRIPTION:
                                                                                                                                                                                                                                                                       TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Fortney, Andrew D. REGISTRATION NUMBER: 34,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: FILING DATE: 24-MAR
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STATE: California
                                                                                                                                                                                                                                                                                 STRANDEDNESS: single
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SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                         Synthetic DNA
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Pred. No. 0.14;
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Pred. No. 0.14;
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                                                                                                                                                               Length 20;
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                                                                                                                                   Indels
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; ANTI-SENSE: Y.
US-08-465-485A-1
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                                                                                                                                                                                                Sequence 7, Application US/08465485A Patent No. 5831066
                                                                                                                                                                                                                                                                                                                                                                                         Matches
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                                                                                                                                                                  GENERAL INFORMATION: APPLICANT: Reed,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
                                                                                                      TITLE OF INVENTION: Regulation of bcl-2 Gene Expression NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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TITLE OF INVENTION: Regulation of bcl-2 Gene Expression
NUMBER OF SEQUENCES: 29
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                          STREET: 1755 S.
CITY: Arlington
                              ADDRESSEE: OBLON, SFIVAN, POLICE ADDRESSEE: P.C.
ADDRESSEE: P.C.
STREET: 1755 S. Jefferson Davis Hwy., Suite 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 20 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
COUNTRY: U.S.A.
                   STATE:
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STATE: Virginia
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                 Virginia
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                                                                                                                                                                Reed, John
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                                                                                       OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT
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22-DEC-1988
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Pred. No. 0.14;
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INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 20 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1, Application US/09080285
Patent No. 6040181
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Best Local Similarity
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Reed, John
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 33:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 0 FILING DATE: 21-FEB-1992 PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 08/124,256
FILING DATE: 20-SEP-1993
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MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE:
                                                                                        SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: Regulation of bcl-2 Gene Expression NUMBER OF SEQUENCES: 29
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Palantin
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/465,485
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
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                                                                                                                                                                                                                                          ADDRESSEE: P.C.
STREET: 1755 S. Jefferson Davis Hwy., Suite 400
CITY: Arlington
STATE: Virginia
                                                                                                                            COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                        COUNTRY: U
ZIP: 22202
                                                                                                                                                                                                                                                                                                                      ADDRESSEE:
                                                                        APPLICATION NUMBER:
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                                                                          US/09/080,285
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 2;
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; ANTI-SENSE: YES
US-09-080-285-1
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Best Local Similarity
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
APPLICATION NUMBER: US 08/
FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/
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PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: DC-DOS/MS-DOS
COMPUTER: COMPUTER: DC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: Regulation of bcl-2 Gene Expression NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                       SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                  APPLICATION NUMBER: US 01 FILING DATE: 05-JUN-1995 PRIOR APPLICATION DATA:
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Y: U.S.A.
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1755 S. Jefferson Davis Hwy., Suite 400
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       US 07/288,692
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US-09-379-718-2
US-09-379-718-2
Sequence 2, Application US/09379718
Patent No. 6310047
Farent No. 6310047
GENERAL INFORMATION:
APPLICANT: Farrell, Nicholas
APPLICANT: Kloster, Miriam
TITLE OF INVENTION: High Affinity DNA Binding Compounds as Adjuvants in TITLE OF INVENTION: Antisense Technology
FILE REFERENCE: farrell/kloster
CURRENT APPLICATION NUMBER: US/09/379,718
CURRENT FILING DATE: 1999-08-24
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                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                    OTHER INFORMATION: Description of Artificial Sequence: synthetic TOTHER INFORMATION: oligonucleotides for gene therapy US-09-379-718-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/09/379,718
CURRENT FILING DATE: 1999-08-24
NUMBER OF SEQ ID NOS: 5
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1, Application US/09379718
Patent No. 6310047
GEMERAL INFORMATION:
APPLICANT: Farrell, Nicholas
APPLICANT: Kloster, Miriam
TITLE OF INVENTION: High Affinity DNA Binding Compounds as Adjuvants in
FILE REFERENCE: farrell/kloster
FILE REFERENCE: farrell/kloster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 20 base pairs
TYPE: nucleic acid
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                            Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ENGTH: 20
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ANTI-SENSE: N
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REGISTRATION NUMBER: 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER:
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                                                                                                                                                                                                                                                                                                                                                      0;
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Query Match Best Local Similarity

100.0%;

Score 20; DB 1; Pred. No. 0.15;

Length 35;

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US-08-217-082A-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: Artificial Sequence ; FEATURE: ; OTHER INFORMATION: Description of Artificial Sequence: synthetic ; OTHER INFORMATION: oligonucleotides for gene therapy US-09-379-718-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
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SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 2
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Best Local Similarity
                                                                                                                                TELEFAX: (408) 436-20
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 35 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/288,692
FILING DATE: 22-DEC-1988
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                   ANTI-SENSE:
                                    MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08/217,082A FILING DATE: 24-MAR-1994 CLASSIFICATION: 435
PRIOR APPLICATION DATA: APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FEB-1992
                                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES FOR INHIBITING THE TITLE OF INVENTION: GROWTH OF CELLS EXPRESSING THE HUMAN ECL-2 GENE
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                                                                  STRANDEDNESS:
                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 34,
                                                    TOPOLOGY:
                                                                                                                                                                                                                                           NAME:
                                                                                                                                                                      TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: 224 Air
CITY: San Jose
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                                                                                                                                                      (408) 436-2075
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                   NO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IBM PC compatible
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                                                                                                                                                                      (408) 436-2070
                                DNA (genomic)
                                                                  single
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Pred. No. 0.14;
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RESULT 11
US-09-080-285-2
; Sequence 2, Application US/09080285
; Patent No. 6040181
; GENERAL INFORMATION:
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                                                                                                                                                                                       Matches
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/288,692
FILING DATE: 22-DEC-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 3335-070-55 CONT
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
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                                                                                                                                                                                                                                                                                         MOLECULE TYPE:
ANTI-SENSE: N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION: NAME: Fortney, Andrew D.
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
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STATE: Virginia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/08/465,485A FILING DATE: 05-JUN-1995
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                                                                                                                       11 GGGAAGGATGGCGCACGCTG 30
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1755 S. Jefferson Davis Hwy., Suite 400
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                                                                                                                                                                                                                                                                                                          DNA (genomic)
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                                                                                                                                                                                                       100.0%; Score 20; DB 2; Length 35; 100.0%; Pred. No. 0.15;
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; TOPOLOGY: 1:
; MOLECULE TYPE:
; ANTI-SENSE: NO
US-09-080-285-2
                                                                                                                                 RESULT 12
US-08-217-082A-11/c
(Sequence 11, Application US/08217082A
Patent No. 5734033
GENERAL INFORMATION:
APPLICANT: Reed, John
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Best Local Similarity
Matches 20; Conserva
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TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/465,485
FILING DATE: 05-JUN-1995
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TITLE OF INVENTION: Regulation of bcl-2 Gene Expression
NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
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                                                            NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
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                                                                                                    TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES FOR INHIBITING THE TITLE OF INVENTION: GROWTH OF CELLS EXPRESSING THE HUMAN ECL-2 GENE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: OBLUN, STITH, ADDRESSEE: P.C.
ADDRESSEE: P.C.
STREET: 1755 S. Jefferson Davis Hwy., Suite 400
                              ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Arlington
STATE: Virginia
                                                                                                                                                                                                                                                                                      11 GGGAAGGATGGCGCACGCTG 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/09/080,285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Fortney, Andrew REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 07/840,716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
           STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                         1 gggaaggatggcgcacgctg
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22202
San Jose
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               35 base pairs
             224 Airport Parkway
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                                P.C
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                                               OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA (genomic)
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100.0%; Pred. No. 0.15;
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COMPUTER

READABLE FORM:

Floppy disk

COUNTRY:

U.S.A.

95110

STATE: California

MEDIUM TYPE:

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                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 10, Application US/08217082A Patent No. 5734033
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 11:
                                                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                              STREET: 22.
STREET: San Jose
CITY: San Jose
CTATE: California
                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES FOR INHIBITING THE TITLE OF INVENTION: GROWTH OF CELLS EXPRESSING THE HUMAN BCL-2 GENE NUMBER OF SEQUENCES: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: other nucleic acid DESCRIPTION: Synthetic DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UMBER: US 07/840,716
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 3335-067-55 FWC TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
                                     APPLICATION NUMBER: FILING DATE: 24-MAR
                    CLASSIFICATION:
                                                                                                                                                                                                                                                                                                ADDRESSEE: P.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17 GGAAGGATGGCGCACGC 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Fortney, Andrew D. REGISTRATION NUMBER: 34,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/08/217,082A FILING DATE: 24-MAR-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 ggaaggatggcgcacgc 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 07/288,692 FILING DATE: 22-DEC-1988
                                                                                                                                                                                                      95110
                                                                                                                                                                                                                                                                         224 Airport Parkway
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                                                                                                                                                                                                                                                                                                                                                                                                                      Reed, John
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (408) 436-2070
                                   24-MAR-1994
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                                                    US/08/217,082A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 17;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-217-082A-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Sequence 12, Application US/08217082A
; Patent No. 5734033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                      APPLICATION NUMBER: US 07/
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/
FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (408) 436-20' INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION UNMBER: US/08/217,082A
FILING DATE: 24-MAR-1994
                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                   REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Reed, John
TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES FOR INHIBITING THE
TITLE OF INVENTION: GROWTH OF CELLS EXPRESSING THE HUMAN BCL-2 GET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: other nucleic acid DESCRIPTION: Synthetic DNA ANTI-SENSE: YES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: 3335-067-55 FWC TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 07/288,692
FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE: P.C.
empreT: 224 Airport Parkway
               TELEPHONE:
                                                                           REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY:
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                                                                                           Fortney, Andrew D.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         California
(408) 436-2075
                                                                                                                                                                                                                                                                                                                                                                                                                                 U.S.A.
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                 (408) 436-2070
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (408) 436-2070
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                                                                                                                                                  US 07/288,692
                                                                       34,600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 34,600
                                                       3335-067-55 FWC
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; TYPE: nucleic acid
STRANDEDNESS: single
STROPLOGY: linear
HOLECULE TYPE: CDNA
US-08-410-804-13
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US-08-410-804-13
US-08-410-804-13
; Sequence 13, Application US/08410804
; Patent No. 5632994
; Patent No. 5632994
; GENERAL INFORMATION:
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                                                                                                                                                                                                                                                      CLASSIFICATION 435
PRIOR APPLICATION DATA:
APPLICATION UMBER: US 08/259,514
FILING DATE: 14-JUN-1994
ATTORNEY/ACENT INFORMATION:
NAME: Campbell, Cathryn
REGISTRATION NUMBER: 31,815
REFERENCE/DOCKET NUMBER: P-LJ 1389
TELECOMMUNICATION INFORMATION:
TELEFAX: (619) 535-8949
INFORMATION FOR SEQ ID NO: 13:
SEQUENCE CHARACTERISTICS:
LENGTH: 27 base pails
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Дb
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DESCRIPTION: Synthetic DNA
ANTI-SENSE: YES
US-08-217-082A-12
                                                                                        Query Match 68.0%; Score 13.6; DB 1; Length 27; Best Local Similarity 80.0%; Pred. No. 2.3e+02;
                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 75.0%; Score 15; DB: Best Local Similarity 100.0%; Pred. No. 43; Matches 15; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: 43,0
STREET: 43,0
CITY: San Diego
STATE: California
COUNTRY: United States
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/410,804
FILING DATE: 27-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Reed, John C.
APPLICANT: Sato, Takaaki
TITLE OF INVENTION: FAS ASSOCIATED PROTEINS
NUMBER OF SEQUENCES: 22
CORRESSONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15 GGGAAGGATGGCGCA 1
1 GGAATTCATGGCGCACGCTG 20
                        1 gggaaggatggcgcacgctg 20
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                                                                              16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EE: Cathryn Campbell
4370 La Jolla Village Drive, Ste 700
                                                                              0;
                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 1; Length 17;
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Search completed: June 28, 2002, 22:16:45 Job time: 8271 sec

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Page 8

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Result
No.
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Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB seq length: 0 Maximum DB seq length: 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Scoring.table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
         Query
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		Reed, J.C.	AUTHORS Re
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		AR052610.1 GI:5975974	VERSION AR
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Krieg,A.M. and Weiner,G.
Methods and products for stimulating the immune system using immunotherapeutic oligonucleotides and cytokines
Patent: US 6218371-A 60 17-APR-2001;
Location/Qualifiers
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Sequence 4
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Krieg, A.M. and Kline, J.N.
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Krieg,A.M., Schetter,C. and Vollmer,J.C.
Immunostimulatory nucleic acids
Patent: WO 0122972-A 56 05-APR-2001;
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and Hartmann, G.
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1 (bases 1 to 18)
1 Immunostimulatory nucleic acid molecules
Patent: JP 2001503267-A, 74 13-MAR-2001;
UNIVERSITY OF IOWA RESEARCH FOUNDATION
OS Artificial Sequence
PN JP 2001503267-A,74
PD 13-MAR-2001
13-MAR-2001
08-738652
PI ARTHUR M KRIEG, JOEL N KLINE
PC COT1421/00, COTH21/02, COTH21/04, A61K31/1
CC
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Corganism-'Artificial
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Sequence 9 from patent US 5831066.
AR052611
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JP 2001503267-A/74.
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UNIVERSITY OF IOWA RESEARCH FOUNDATION (US)
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30-OCT-1996 US 08/738652
ARTHUR M KRIEG, JOEL N KLINE
C07H21/00, C07H21/02, C07H21/04, A61K31/175, A61K31/335, A61K31/47,
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Ashcroft,F., Sakura,H., Ashfield,R. and Ashcroft,S.J.
K-ATP CHANNEL PROTEIN AND METHODS RELATING TO IT
PATENT: WO 9718308-A 25 22-MAY-1997;
WELLCOME TRUST LIMITED AS TRUS (GB)
Other publication AU 7583296 19970605.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
A63054
Phytoene biosynthesis in genetically engineered hosts Patent: US 5545816-A 18 13-AUG-1996; Location/Qualifiers
                                 Ausich,R.L., Brinkhaus,F.L., Mukharji,I., Proffitt,J., and Yen,H.-C.B.
                                                                                    Unknown
                                                                                                                                  Sequence 18 from patent US I24847
                                                                      Unclassified
                                                                                               Unknown
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25 from Patent WO9718308
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/db_xref="taxon:32644"
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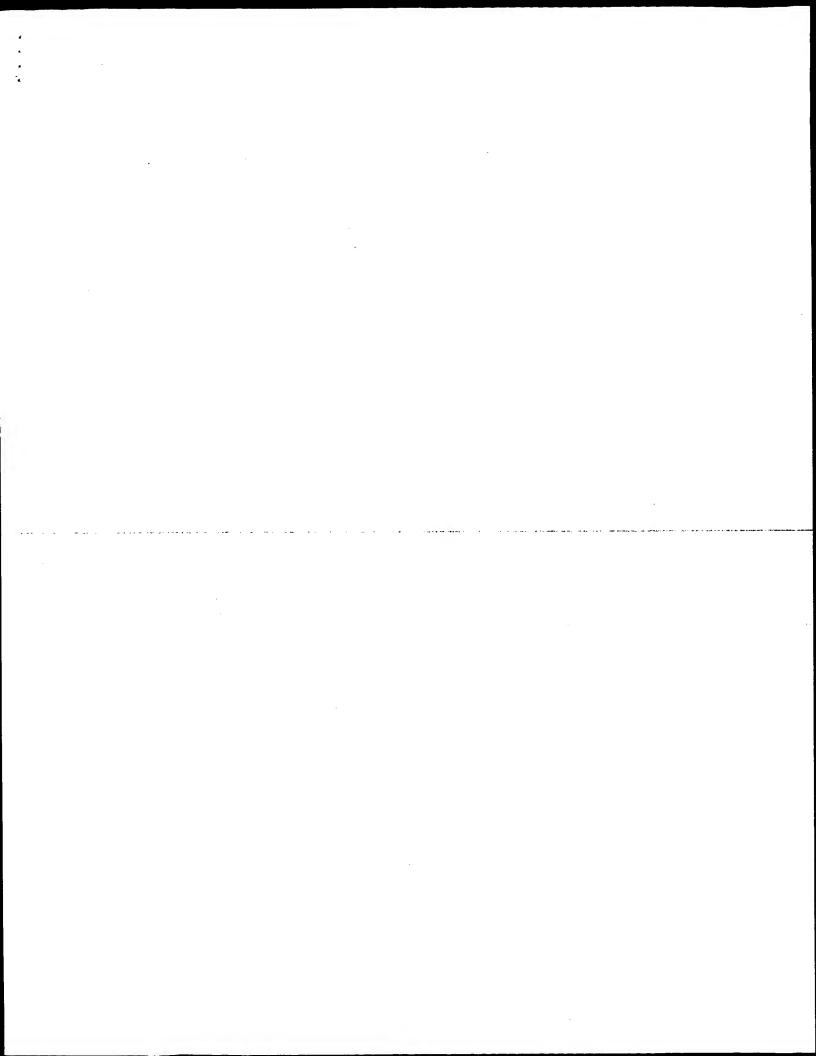
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172668
                                                                                                              Ausich, R.L., Brinkhaus, F.Luetke., Mukharji, I., Proffitt, J.H., Yarger, J.G. and Yen, H.-C.Bill.
Biosynthesis of zeaxanthin and glycosylated zeaxanthin in genetically engineered hosts
Patent: US 5684238-A 30 04-NOV-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 31)
Ausich, R.L., Brink
and Yen, H.-C.B.
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30 from patent US 5684238
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10 c 7 g
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7 c 10 ~
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82.4%;
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82.4%;
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Pred. No. 4.8e+04;
          Score 12.2; DB 6;
Pred. No. 4.8e+04;
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Pred. No. 4.8e+04;
 Mismatches
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RESULT 1
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172670
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Ausich, R.L., Brinkhaus, F.Luetke., Mukharji, I., Proffitt, J.H., Yarger, J.G. and Yen, H.-C.Bill.
Biosynthesis of zeaxanthin and glycosylated zeaxanthin in genetically engineered hosts genetically engineered hosts
Patent: US 5684738-A 32 04 NOV-1997;
Location/Qualifiers
                                                                                                                                                                       Submitted (13-JUN-1995) Patrick Ryan, Microbiology and Immunobiology, University of Tennessee, 858 Madison Ave, Room 201, Memphis, TN 38163, USA
                                                                                                                                                                                                                                                                           Ryan, P. and Edwards, C.O.
Systematic introduction of proline in a eukaryotic signal sequence suggests asymmetry within the hydrophobic core J. Biol. Chem. 270 (46), 27876-27879 (1995)
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Alphaherpesvirinae; Varicellovirus
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/gene="gC"
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                               /gene="gC"
1. .66
                                                                     /db_xref="taxon:10345"
/map="0.4 map units"
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                                                                                                   /isolate="549"
                                                                                                                    /strain="Becker"
                                                                                                                                organism="Pseudorabies"
                                                                                                                                                           Location/Qualifiers
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82.4%;
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Pred. No. 4.8e+04;
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AUTHORS
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FEATURES
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LOCUS.
DEFINITION
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KEYWORDS
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ORGANISM
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ORIGIN
Search completed: June 28, 2002, 22:11:05 Job time: 8356 sec
                                                                              Query Match 69.4%;
Best Local Similarity 86.7%;
Matches 13; Conservative
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Best Local Similarity 82.4%;
Matches 14; Conservative
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14 CGCGTGCGATGCTCCTG 30
                                           3 CGTGCGCCCTTCTTG 17
                                                     3 cgtgcgaccctcttg 17
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Unknown.
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AR106803 AR106803.1 GI:12821333
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Pred. No. 4.4e+04;
0; Mismatches 3;
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Listing first 45 summaries
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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21.133 Million cell updates/sec
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Copyright (c) 1993 - 2000 Comp
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Result No.	Score	Query Match Length DB ID	ength f	B	ID	Description
	17	100.0	17	16	AAQ86650	Bcl-2 antisense ol
N	17	100.0	17	19	AAV28172	Antisense oligonuc
ω	17	100.0	17	20	AAX23684	Deletion sequence
4	17	100.0	17	20	AAX18693	Target bcl-2 antis
ر ت	15.4	90.6	20	22	AAH48722	Proto-oncogene bcl
6	15	88.2	18	19	AAV52546	Unmethylated CpG o
7	15	88.2	18	19	AAV27720	Immunostimulatory
8	15	88.2	18	20	AAZ41906	IL-12 secretion in
9	15	88.2	18	21	AAZ47644	Parasitic infection

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AAT14938 AAT130155 AAF8533 AAT14940 AAT30160 AAO38042 AAO38042 AAO38043 AAC29094	ABI96692 ABI89178 ABI89179 ABI89954 ABI89955 AAA10806	AAV62344 AAD13645 AAD13647 ABI96304	AAT9150 AAL28453 AAA48801 AAH27725 AAB195769 AB195769 AB188109 AB188109 AAA14650 AA173994 AAA761882 AAV62342	AAZ47982 AAH50628 AAF98888 AAF98931 AAQ86651 AAT67093
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### ALIGNMENTS

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AC AAQ8
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XX AATI
KW Lymp
XX Synt
XX Synt
XX Synt
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XX OO95
XX WO95
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XX CREE
XX RESE
                                                                                                                                                                                                                                                                      AAQ86650;
                                                                                                                                                                                                                                                                                          AAQ86650 standard; DNA; 17 BP.
                                                                                                                                                                                                Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy; lymphoma; programmed cell death; ss.
                                                                                                                                                                                                                                 Bcl-2 antisense oligonucleotide.
                                                                                                                                                                                                                                                    27-SEP-1995 (first entry)
                                                                                                                                                 misc_feature
                                                                                                                                                                              Synthetic.
                                                                                                           W09508350-A
         Reed JC;
                             (REED/) REED J C.
                                                 20-SEP-1993;
                                                                    20-SEP-1994;
                                                                                        30-MAR-1995
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                                                  93US-0124256
                                                                     94WO-US10725
                                                                                                                                                   Location/Qualifiers 1..17
                                                                                                                               /*tag= a
/note= "3'-5' (antisense) sequence"
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                                                          reversibly binds a target oligonucleotide, and comprises a sequence of bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative diseases, for treating a non-pathogen,
                                   of hyperproliferative diseases, for treating a non-pathogen, non-hyperproliferative disease, e.g. Alzheimer's, for modula expression of cell surface proteins, and to inhibit a eukary
                                                                                                                                     AAV28155-268 represent oligonucleotides which can be purified using the method of the invention. The specification describes a matrix that comprises a support and an affinity unit that specifically and
                                                                                                                                                                                                                                           Matrix for selective separation of oligo:nucleotide - useful for, e.g. large scale purification of anti-sense agents from their
                          pathogen, retrovirus or other viruses.
                                                                                                                                                                                                      Disclosure; Page 79; 183pp; English.
                                                                                                                                                                                                                                                                                             WPI; 1998-362922/31.
                                                                                                                                                                                                                                  deletion derivatives formed during synthesis
                                                                                                                                                                                                                                                                                                                                                                                    19-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic
                                                                                                                                                                                                                                                                                                                                                        (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                18-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                             25-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO9827425-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               affinity purification; antisense;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Antisense oligonucleotide to bcl-2 mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAV28172 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               programmed cell death (DNA fragmentation) in the human lymphoma cell line RS11846. The oligonucleotides are phosphodiesters targeted against the translation initiation site (AAQ86650-55) or the 5'-cap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAV28172;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 17 BP; 1 A; 7 C; 5 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Antisense oligonucleotides were tested for their ability to induce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 12; Page 33; 108pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    region (AAQ86656-58) of human bcl-2 pre-mRNAs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Anti-code oligomers which bind to bcl-2 mRNA - for the treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1995-139394/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity es 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       human solid tumours, esp. breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N
                                                                                                                                                                                                                                                                                                                          Cole DL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          oligonucleotide; matrix; affinity unit;
                                                                                                                                                                                                                                                                                                                                                                                    96US-0769951
                                                                                                                                                                                                                                                                                                                                                                                                                97WO-US23284
                                                                                                                                                                                                                                                                                                                         Srivatsa GS;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               bcl-2; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB
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                                                   for modulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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Sequence 17 BP; 1 A;

7 C;

5 G;

4 T;

0 other

Sequence 17 BP; 1 A; 7 C; 5 G; 4 T; 0 other;

Score 17;

DВ

20;

Length 17

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CC sensor arrays, where each array comprises a unique probe
C oligonucleotide, which is the reverse complement of part of a unique
CC target oligonucleotide present in a mixture of target deletion sequence
CC cligonucleotides. The compositions form a method for characterizing a
CC sample of target deletion oligonucleotides which are labelled and
CC hybridize with the probe oligonucleotides of the sensor arrays. Such
CC oligonucleotides and their targets are represented in AnX23548-X23709.
CC oligonucleotides characterized by the method form pharmaceutical
CC compositions that are useful for modulating cellular adhesion or
CC retrovirus, and being active against a eukaryotic pathogen, a human
CC retrovirus, including influenza virus, Epstein-Barr virus, Respiratory
CC Syncytial Virus or cytomegalovirus (CMY). The compositions enable
CC characterization of deletion sequence oligonucleotides having related,
CC but different nucleobase sequences, and quantification of different
CC species of deletion sequence ("target") oligonucleotides in a mixture.
CC Also, if the specificity of the oligonucleotide's nucleobase sequence
CC for its reverse complement is not modified, the method may be performed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAX23684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
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                                                                                                                                                                                                                                                                                                                                                                       This invention describes a novel composition comprising a number of
                                                                                                                                                                                                                                                                                                                                                                                                                                                             New compositions comprising sensor arrays made up of unique probe oligonucleotides - useful for characterizing a sample of target
                                   using oligodeoxynucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                         Example 9; Page 149; 163pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                deletion oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1999-205198/17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Deletion sequence oligonucleotide; sensor array; eukaryotic pathogen; probe; cellular adhesion modulator; cellular proliferation modulator; human retrovirus; human immunodeficiency virus; non-human retrovirus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W09911820-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAX23684;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HIV; primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Deletion sequence oligonucleotide 137.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-JUN-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97US-0923771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98WO-US18084.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
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100.0%;

Pred. No. 5.2;

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RESULT
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                                                                                                                                                                   CC A pharmaceutical composition has been developed which comprises a cut cancid and at least one penetration enhancer. The compositions are cused: (i) to treat or prevent any disease or disorder that can be composited with the nucleic acid, e.g. cancer, Alzheimer's disease, compositions (beta-thalassemia, malaria, viral infections (including human immune compositions), inflammation, in human or animal medicine; compositions (iii) to investigate the role of a gene or gene product in non-human compositions provide bioavailability of at least 15, compositions provide bioavailability of at least 15, compositions provide bioavailability of at least 15, compositions provide bioavailability of animal and into composition around the mucosa of the alimentary canal and into composition around the mucosa of the nucleic acid. Oral composition around the composition and expense of intravenous or composition around the composition and expense of intravenous or composition around the composition. ANX18669 to ANX18799 and AAX18801 crepresent antisense oligonucleotides which can be used as the nucleic acid in the method of the invention.
                                                                            Query Match
Best Local
                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity Matches 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Composition comprising nucleic acid and penetration enhancer - use particularly for delivering therapeutic antisense oligonucleotides across the gastrointestinal mucosa, provides high bioavailability
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cellular adhesion protein; proliferation; antisense oligonucleotide; alimentary canal; transport; gastrointestinal mucosa; cancer; alzheimer's disease; beta-thalassemia; malaria; viral infection;
                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 2; Page 84; 115pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Target bcl-2 antisense oligonucleotide #25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAX18693 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hardee G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-JAN-1999
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                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4
           cgcgtgcgaccctcttg 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cgcgtgcgaccctcttg 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cgcgtgcgaccctcttg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          inflammation; ss
                                                                                                                                             17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Teng C;
                                                                                                                                          BP; 1 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97US-0886829
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                                                                                                                                          7 C;
                                                                            100.0%;
                                                                                                                                          5 G;
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                                                                         Score 17; DB Pred. No. 5.2;
                                                                                                                                          4 T; 0 other;
                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                          DB 20;
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                                                                                          Length 17;
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                                                         0;
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                                                                                                                                                                                                                                                                                                                                                                                                       are
                                                         0;
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Matches

Conservative

0;

1 cgcgtgcgaccctcttg 17

Query Match Best Local Similarity

90.6%;

Score 15.4; Pred. No. 39;

DB 22;

Length Indels

20;

0;

Gaps

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RESULT
AAH48722
   overexpressing the somatostatin receptor (SSTR) (e.g. small-cell lung tumors, breast tumors, brain tumors or other endocrine tumors), but are also useful for treating viral diseases (e.g. herpes simplex-1 infection), inflammatory disease (typical target RNA the MRA the WF-kappa-B), asthmatic disease (typical target RNA the adenosine Al receptor), central nervous system disease (typical target RNA the dopamine receptor) or cardiovascular disease (typical target RNA c-myc). (1) are efficiently taken up by cells and incorporated in target cells (via the SSTR) and are highly selective for cells overexpressing SSTR's. This sequence represents a primer used to illustrate the method of the invention.
                                                                                                                                                                                                      virucide, antiinflammatory, antiasthmatic and cardiant activity. The use of (I) is claimed in antisense therapy, especially of cancer, viral disease, inflammatory processes or asthmatic, central nervous system or cardiovascular disease. (I) are especially used for therapy of tumors
                                                                                                                                                                                                                                                                     This invention describes a novel oligonucleotide conjugate (I) comprising (a) an oligonucleotide, at least part of the sequence of which is complementary to part of an intracellular nucleic acid sequence; and (b) a somatostatin analog. The products of the invention have cytostatic,
                                                                                                                                                                                                                                                                                                                                                                                           New conjugates of oligonucleotides with somatostatin analogs, antisense therapy, e.g. of viral, inflammatory or asthmatic diespecially tumors overexpressing the somatostatin receptor -
 Sequence 20
                                                                                                                                                                                                                                                                                                                                                             Example 3; Page 9; 16pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-530596/59.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eisenhut M, Mier W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-FEB-2000; 2000DE-1006572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-FEB-2000; 2000DE-1006572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-AUG-2001.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cancer; viral disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     antiinflammatory; antiasthmatic; cardiant; antisense therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Proto-oncogene bcl-2 associated primer
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         phosphorothioate; somatostatin;
   BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
   2 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      system disease; cardiovascular disease; SSTR;
bcl-2; ss.
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/mod_base= "OTHER"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note= "phosphorothioate"
7 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eritia R, Haberkorn U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        inflammatory process; somatostatin
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   ç;
 6 T;
   0 other;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cytostatic; virucide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     receptor;
                                                                                                                                                                                                                                                                                                                                                                                                    disease
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RESULT
AAV27720
ID AAV2
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                                                                                                                                                                                                                                                                 unmethylated CpG. The nucleic acids containing an unmethylated CpG dinucleotide affect an immune response in a subject by activating natural killer cells (NK) or redirecting a subject's immune response from a Th2 to a Th1 response by inducing monocytic and other cells to produce Th1 cytokines. They can be used to treat pulmonary disorders having an immunologic component, such as asthma or environmentally induced airway disease. They can also be used to treat diseases associated with Gram-positive bacterial infections or endotoxaemia including bacterial meningitis, neonatal sepsis, cystic fibrosis, inflammatory bowel disease and liver cirrhosis, Gram-negative pneumonia, Gram-negative abdominal abscess, haemorrhagic shock, disseminated intravascular coagulation, or
                                                                                                                                                                                                                                                                                                                                                                                                                                             This sequence represents an unmethylated CpG dinucleotide, and can be used in the method of the invention. The method is for treating a subject having, or at risk of having an acute decrement in air flow, comprising administering a nucleic acid sequence containing at least one
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Use of nucleic acids containing an unmethylated CpG - for treating a subject having or at risk of having an acute decrement in air flow
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unmethylated CpG dinucleotide; immune response; bacterial meningitis; natural killer cell activation; NK cell; Th2 response; neonatal sepsis; pulmonary disorder; asthma; environmentally induced airway disease; bacterial infection; endotoxaemia; therapy; cystic fibrosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAV52546 standard; DNA; 18
 AAV27720 standard; DNA; 18 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-FEB-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAV52546;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 4;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (IOWA ) UNIV IOWA RES FOUND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          inflammatory bowel disease; ss.
                                                                                                                                                                                                                        Sequence
                                                                                4
                                                                                                             1 cgcgtgcgaccctct 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                σ
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                                                                                                                                            15; Conservative
                                                                                                                                                                                                                         18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Schwartz DA
                                                                                                                                                                                                                         BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CpG dinucleotide 1761.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           an inflammatory response
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97US-0039405
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                                                                                                                                                                                                                         2 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            35,
                                                                                                                                                                                                                                                         response
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          65pp; English.
                                                                                                                                                                                                                         8
                                                                                18
                                                                                                                                                          100.0%;
                                                                                                                                                                                                                         C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                       to lipopolysaccharide
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                                                                                                                                              0;
                                                                                                                                                             Score 15;
Pred. No.
                                                                                                                                                           DB 19;
65;
                                                                                                                                              0,
                                                                                                                                                                            Length 18;
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                                                                                                                                              Gaps
                                                                                                                                              0;
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RESULT
AAZ41906
ID AAZ4
XX
AC AAZ4
XX
AC AAZ4
XX
AC AAZ4

AAZ41906 standard; DNA; 18

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24-JAN-2000 AAZ41906;

(first entry)

B δÃ

4

1 cgcgtgcgaccctct 15

Matches

Conservative

0;

Query Match Best Local Similarity

88.2%; 100.0%;

Score 15; Pred. No. Mismatches

DB 65; 19; 0;

Indels

0;

Gaps

0

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consecutive CpGs, XI and X2 are selected from GpT, GpG, GpA, ApT and ApA, X3 and X4 are selected from TpT or CpT, N is any nucleotide and N1+N2 is 0-26 bases with the provision that N1 and N2 does not contain a CCGG tetramer or more than one CCG or CGG trimer.

The ODNs activate lymphocytes in a subject and redirect a subject's immune response from a Th2 to a Th1 (e.g. by inducing monocytic cells and other cells to produce Th1 cytokines, including IL-12, IFN-gamma and GM-CSF). The ODNs can be used to treat or prevent an asthmatic disorder, autoimmune diseases, in desensitisation therapy, as an artificial adjuvant during antibody generation in a mammal such as a mouse or a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Immunostimulatory; oligodeoxyribonucleotide; ODN; unmethylated CpG dinucleotide; activate; lymphocyte; immune response; Th2; Th1; Cytokine; treatment; prevention; asthma; autoimmune disease; desensitisation therapy; artificial adjuvant; antibody generation; ss.
                                                                                                                                                                                                                                            (ODNs) of the invention. The ODNs contain at least one unmethylated Cpu dinucleotide, and have the formula:
dinucleotide, and have the formula:
1 (NIXICGX2NZ 3', where at least one nucleotide separates consecutive CpGs, XI is adenine, guanine, or thymine, XZ is cytosine or thymine, N is any nucleotide and NI+NZ is 0-26 bases with the provision that NI at N2 does not contain a CCGG tetramer or more than one CCG or CGG trimer OR 5' NXIXZCGX3X4N 3', where at least one nucleotide separates
                                                                                                                                                                                                                                                                                                                                                                                                                                                        New immunostimulatory nucleic acid molecules - which contain at least one unmethylated CpG dinucleotide, used for treating e.g. tumours, infections or autoimmune disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1998-272127/24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic
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Sequence 18
                                                                                                                                                                                                                                                                                                                                                                               AAV27641-751 represent immunostimulatory oligodeoxyribonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 49; 109pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Krieg AM
   BP;
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   G; 4
   T; 0 other;
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RESULT
AAZ476
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     antigen presenting cell; infection; allergic disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IL-12 secretion inducing CpG oligonucleotide 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-APR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antigen specific immune response against a cancer antigen. The methods can also be used to treat neoplastic disorders in humans, including but not limited to: sarcoma, carcinoma, fibroma, Lymphoma, melanoma,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           response in a subject comprising administering to a subject exposed to antigen, an immunopotentiating cytokine and an immunostimulatory CpG oligonucleotide to induce a synergistic antigen specific immune response. The methods are useful for treating cancer by stimulating an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequences AAZ41856-Z41949 are phosphorothioate CpG oligonucleotides which are used in the invention to induce interleukin-12 (IL-12)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel synergistic combinations of immunostimulatory oligonucleotides and immunopotentiating cytokines are useful for stimulating the immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Krieg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-OCT-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           e.g. cats and dogs. Neoplasias affecting agricultural livestock may also be treated and include leukaemia, haemangiopericytoma and bowine ocular neoplasia. Chronic, infectious, contagious diseases of sheep and goats caused by the bacterium Corynebacterium pseudotuberculosis, and contagious lung tumour of sheep caused by jaagsiekte may also be treated. CpG oligonucleotides can be useful in activating B cells, NK cells, and antigen presenting cells, such as monocytes and macrophages.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        not limited to: sarcoma, carcinoma, fibroma, Lymphoma, melanoma, neuroblastoma, retinoblastoma, and glioma. The methods are also useful for treating infectious diseases, e.g. viral diseases such as HIV, bacterial diseases, and fungal diseases. The methods may also be used to the same allowed to be used to the same also be used to the same allowed to be used to the same allowed the same allowed to the same allowed to the same allowed the same allowed to the same allowed to the same allowed the same allowed to the same allowed the same allowed to the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed the same allowed
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 8; Page 80; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    system
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               treat allergic diseases, e.g. asthma. The methods and compositions may also be applied to treat cancer and tumours in non human subjects,
                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       can be used as an adjuvant in conju
protect against a tumour challenge.
AAZ47644 standard; DNA; 18 BP
                                                                                                                                                                                                                                                                                                              Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     oligonucleotides enhance antibody dependent cellular cytotoxicity and be used as an adjuvant in conjunction with tumour antigens to
                                                                                                                                                                                     cgcgtgcgaccctct 15
                                                                                                                                                       cgcgtgcgaccctct 18
                                                                                                                                                                                                                                                                                   15;
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                                                                                                                                                                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                                         88.2%; pre
100.0%; pre
                                                                                                                                                                                                                                                                                                                                                   Score 15;
                                                                                                                                                                                                                                                                                                                        Pred. No.
                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                            DB 20;
65;
                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                       Length 18;
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Parasitic infection preventing exemplary oligonucleotide SEQ ID NO:50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAR-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention describes a method for treating and preventing parasitic infection by administration of unmethylated CpG parasitic infection by administration of unmethylated CpG oligonucleotides are able to stimulate the innate immune system via the activation of immune cells, such as antipresenting cells, natural killer cells and granulocytes. The CpG presenting cells, natural killer cells and granulocytes and the method can be used to treat and prevent coligonucleotides and the method can be used to treat and prevent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              which can be treated or prevented include those caused by Plasmodium falciparum, P. ovale, P. malariae, P. vivax, P. knowlesi, Babesia microti, B. divergens, Trypanosoma cruzi, T. gambiense, T. rhodesiense, Schistosoma mansoni, Toxoplasma gondii, Trichinella spiralis, Leishmania major, L. donovani, L. braziliensis, and L. tropica. The parasite is especially capable of causing malaria. The present sequence represents a parasitic infection preventing exemplary oligonucleotide sequence from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 parasitic diseases, such as malaria, helminth diseases, tick and mites in humans, animals and poultry. The oligonucleotides may be administered in conjunction with parasiticides or other therapeutic compounds after an organism has been diagnosed to be infected with parasites. Diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Treating and preventing parasitic infections using CpG oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gramzinski RA, Krieg AM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (IOWA ) UNIV IOWA RES FOUND
(OTTA-) OTTAWA CIVIC LOEB RI
(USNA ) US SEC OF NAVY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11-NOV-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 20; 74pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                the present invention.
                                                                                                                                   AAZ47982 standard; DNA; 18
                                             08-MAR-2000
Immune remodeling inducing CpG oligonucleotide SEQ ID NO:60.
                                                                                                                                                                              10
                                                                                                                                                                                                                                        4 cgcgtgcgaccctct 18
                                                                                                                                                                                                                                                               1 cgcgtgcgaccctct 15
                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                               Conservative
                                                (first entry)
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                                                                                                                                                                                                                                                                                                                                                        100.0%;
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                                                                                                                                                                                                                                                                                                                                                      Score 15;
Pred. No.
                                                                                                                                                                                                                                                                                                                                    Mismatches
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                                                                                                                                                                                                                                                                                                                                                                               DB 21; Length 18;
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                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    as antigen
                                                                                                                                                                                                                                                                                                                                           Gaps
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Haematopoiesis; regulation; CpG oligonucleotide; phosphorothioate;

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AAH50628
                                                                                              RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention describes a method using CpG containing colligonuclectides (ONs) for regulating immune system remodeling and for regulating the system remodeling and for commune response comprises: The method for inducing an antigen-specific including at least the formula (I); and (2) exposing the subject to an including at least the formula (I); and (2) exposing the subject to an including at least the formula (I); and (2) exposing the subject to an including at least the formula (I); and (2) exposing the subject to an including an antigen-specific immune response: 5 x1CxX 3' (I), where the ON = includes at least 8 nucleotides; C and C = unmethylated, and cresponse against an antigen such as cells, cell extracts, proteins, complysaccharides, polysaccharide conjugates, lipids, glycolipids, carbohydrate, viral extracts, viruses, bacteria, fungi, parasites and complysaccharide conjugates, lipids, glycolipids, callergens. It can be used in a subject at risk of developing cancer or complysace, allergic diseases and asthma, as well as thrombocytopaenia cut an also be used for treating an infectious which is drug-induced, due to an autoimmune disorder such as idiopathic creatation exposure. It can also be used for treating anaemia such as comply induced anaemia, immunohaemolytic disporder, genetic disorders such as as haemoglobinopathy and inherited haemolytic anaemia, inadequate correduction despite adequate iron stores, chronic disease such as kidney contains and chronic inflammatory disorders conh as challed as kidney as a such as kidney can be considered to the contains as kidney as a conh as conh as challed as kidney can be considered to the conh as kidney as a conh as conh as conh as kidney as held as kidney can be considered to the conh as kidney as a conh as conh as conh as kidney as kidney can be conh as conh as kidney as a conh as kidney as a conh as kidney as a conh as conh as kidney as a conh as conh as kidney as a conh as conh as conh as kidney as a conh as conh as conh as kidney as conh as conh as
                                                                                                                                                                                                                                                                   Matches
AAH50628;
                                        AAH50628 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                               failure, and chronic inflammatory disorder such as rheumatoid arthritis, or anaemia resulting from accidental or therapeutic radiation exposure. AAZ47932 to AAZ48029 represent phosphorothicate CpG oligonucleotides used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                        Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Use of CpG containing oligonucleotides for, e.g. inducing an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 1; Page 66; 116pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   antigen-specific immune response
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wagner H, Lipford G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 immune remodeling; thrombopoiesis; anaemia; immune system; cancer immune response; allergic reaction; infectious disease; asthma; thrombocytopaenia; immunohaemolytic disorder; genetic disorder; haemoglobinopathy; kidney failure; chronic inflammatory disorder; rheumatoid arthritis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (CPGI-) CPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-MAY-1999;
                                                                                                                                                                                                                                                                                       Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-MAY-1998;
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                                                                                                                                                                                      1 cgcgtgcgaccctct 15
                                                                                                                                                             4 cgcgtgcgaccctct 18
                                                                                                                                                                                                                                                                   15;
                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IMMUNOPHARMACEUTICALS GMBH.
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                                                                                                                                                                                                                                                                               88.2%;
                                        BP.
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                                                                                                                                                                                                                                                                               Score 15;
Pred. No.
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                                                                                                                                                                                                                                                                             DB 21; Length 18 65;
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AAF98888

AAF98888 standard; DNA; 18

AAF98888

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Matches Query Match

15;

Conservative

88.2%; Score 15; 100.0%; Pred. No. tive 0; Mismatch

65;

DB 22; Length 18;

Mismatches

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Gaps

0,

Local

Similarity

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activity; (3) inducing interferon-gamma in a subject to treat an immune system deficiency comprising administering to the subject to induce interferon-gamma production, the immunostimulatory nucleic acid; and (4) inducing IL-12 in a subject comprising administering to the subject the immunostimulatory nucleic acid. The methods are useful for inducing IL-6, interferon-gamma or IL-12, or stimulating natural killer cell
                                                     lytic activity in a subject, particularly a human. The methods are particularly useful for modulating an immune response. AAH50571 to AAH50671 represent oligonucleotide sequences used in the exemplific
                                                                                                                                                                                                                                                                                        The present invention describes methods for inducing interleukin 6 (IL-6), interferon gamma (IFN-gamma) or IL-12, or for stimulating natural killer cell lytic activity. The methods comprise administering to the subject or exposing a natural killer cell oan immunostimulatory nucleic acid. Also described are: (1) inducing IL-6 in a subject comprising administering to the subject to induce IL-6 in the subject the immunostimulatory nucleic acid; (2) stimulating natural killer cell
Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;
                                          of the present invention.
                                                                                                                                                                                                                                                the immunostimulatory nucleic acid; (2) stimulating natural killer cell lytic activity comprising exposing a natural killer cell to the immunostimulatory nucleic acid to stimulate natural killer cell lytic activity. (2) industrial cell cell to stimulate natural killer cell lytic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Column 32; 74pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Methods for inducing II-6, interferon-gamma or II-12, or stimulating natural killer cell lytic activity in a human, comprise administering to the subject or exposing a natural killer cell to immunostimulatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-380456/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Krieg AM,
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(COLE-) COLEY PHARM GROUP INC.
(USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-OCT-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-OCT-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      unmethylated CpG dinucleotide; immune response; B cell proliferation; Th1; immune activation; interleukin 6; IL-6; interferon gamma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Immunostimulatory; inducing; natural killer cell; lytic activity,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Natural killer cell lytic activity inducing oligonucleotide SEQ ID NO:60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-AUG-2001 (first entry)
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                                                        in the exemplification
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RESULT 13
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-JUN-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  response. The method comprises administering an immunostimulatory nucleic acid to a non-rodent subject in sufficient quantity to stimulate an immune response. The present sequence is one such immunostimulatory nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects are insert theorem whereas the present in the control of the present in the present of the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present in the present 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma, haemophilus, campylobacter, clostridium, Escherichia coli and/or staphylococcus), fungal antigens and/or parasitic antigens. The method is also useful for preventing cancer, asthma, infectious disease, allergy or immune deficiency. The present sequence can also be used to redirect a Th2 to a Th1 immune response and to activate immune cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 38; 338pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vaccinating against tumors, infectious diseases, allergies and asthmausing immunostimulatory Py-rich and TG nucleic acids -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23-AUG-2000;
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27-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention relates to a method for stimulating an immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 18
                                                                                                                                                                                                                                                                                 AAF98931 standard; DNA; 18 BP
                    vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;
immunostimulatory; tumour; viral infection; bacterial infection;
                                                                                                                                                                      12-JUN-2001
fungal infection; parasitic infection; cancer; asthma.
                                                                                                       Immunostimulatory nucleic acid #47.
                                                                                                                                                                                                                              AAF98931
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 cgcgtgcgaccctct 15
                                                                                                                                                                                                                                                                                                                                                                                                                            4
                                                                                                                                                                                                                                                                                                                                                                                                                      cgcgtgcgaccctct 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the present sequence may have a phosphorothicate backbone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COLEY PHARM GMBH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Schetter C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BP; 2 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0227436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US26383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IOWA RES FOUND
                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-0156113.
99US-0156135.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Vollmer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 15;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 22; Length 18; 65;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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AAQ86651
                                                                                                                                                                                                                                                                                                               RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         response. The method comprises administering an immunostimulatory nucleic acid to a non-rodent subject in sufficient quantity to stimulate an immune response. The present sequence is one such immunostimulatory nucleic acid. The immunostimulatory nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200122972-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        infectious disease; allergy; immune deficiency; phosphorothioate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma, haemophilus, campylobacter, clostridium, Escherichia coli and/or staphylococcus), fungal antigens and/or parasitic antigens. The method is also useful for preventing cancer, asthma, infectious disease, allergy or also useful for preventing cancer, asthma, infectious disease, allergy or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Vaccinating against tumors, infectious diseases, allergies and asthmausing immunostimulatory {\tt Py-rich} and {\tt TG} nucleic acids -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-SEP-1999; 99US-0156135:
23-AUG-2000; 2000US-0227436:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention relates to a method for stimulating an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 39; 338pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-273485/28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Krieg AM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (IOWA ) UNIV IOWA RES FOUND (COLE-) COLEY PHARM GMBH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-SEP-2000; 2000WO-US26383
                                                                                                                                                                                                                                               AAQ86651;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 18
                                                                                                                                                                              Bc1-2 antisense oligonucleotide.
                                                                                                                                                                                                                                                                              AAQ86651 standard; DNA; 17 BP
                                                                                                                            Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; lymphoma; programmed cell death; ss.
                                                                                                                                                                                                              27-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            immune deficiency. The present sequence can also be used to redirect the to a Th1 immune response and to activate immune cells.
                                              misc_feature
                                                                                                                                                                                                                                                                                                               14
                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                                               1 cgcgtgcgaccctct 15
                                                                                                                                                                                                                                                                                                                                                            4 cgcgtgcgaccctct 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the present sequence may have a phosphorothicate backbone
                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Schetter C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0156113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 A; 8 C; 4 G; 4 T; 0 other;
                                                  Location/Qualifiers 1..17
                   /note= "3'-5' (antisense) sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vollmer J;
                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 15;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 18;
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RESULT 15
AAT67093/c
ID AAT67093/c
ID AAT6700
XX AAT670
XX AAT670
XX AAT670
XX AAT9-se
KW Probe;
XX Synthe
XX W09718
XX W09718
XX W09718
XX W18-NOV
XX I8-NOV
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                   Kir6.2 gene encoding protein that forms ATP-sensitive potassium ion channel - useful to treat disease associated with abnormal coupling of cellular metabolism to potassium fluxes and/or electrical
                                                          activity
                                                                                                                                                                                        WPI; 1997-289284/26.
                                                                                                                                                                                                                                     Ashcroft F, Ashcroft SJH, Ashfield R,
                                                                                                                                                                                                                                                                                                                                                                                                        18-NOV-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATP-sensitive potassium ion channel; K-ATP channel; Kir6.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        K-ATP channel subunit Kir6.2 3'UTR probe.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Antisense oligonucleotides were tested for their ability to induce programmed cell death (DNA fragmentation) in the human lymphoma cell line RS11846. The oligonucleotides are phosphodisters targeted against the translation initiation site (AAQ8650-55) or the 5'-cap region (AAQ8656-58) of human bcl-2 pre-mRNAs. The AAQ86651 oligonucleotide provided pronounced DNA fragmentation.
                                                                                                                                                                                                                                                                                                (WELL ) WELLCOME TRUST LTD.
                                                                                                                                                                                                                                                                                                                                                   16-NOV-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             W09718308-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       probe; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             22-MAY-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08-AUG-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAT67093 standard; DNA; 45 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAT67093;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 17 BP; 2 A; 8 C; 4 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       of human solid tumours, esp. breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 12; Page 33; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1995-139394/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Reed JC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Anti-code oligomers which bind to bcl-2 mRNA - for the treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (REED/) REED J C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9508350-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 cgcgtgcgaccctc 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cgcgtgcgaccctc 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                95GB-0023497
                                                                                                                                                                                                                                                                                                                                                                                                        96WO-GB02831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93US-0124256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             94WO-US10725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  82.4%; 5c.
100.0%; Pr/
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
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2.3e+02;
                                                                                                                                                                                                                                        Sakura H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
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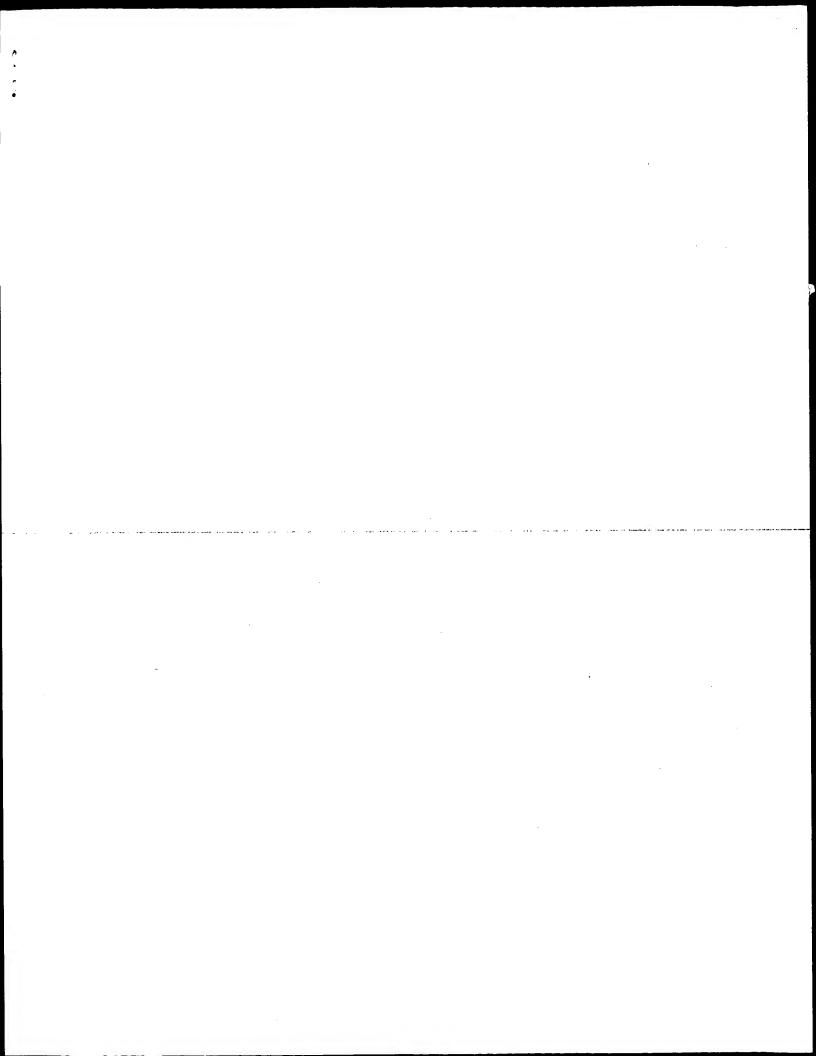
Example 7; Page 34; 61pp; English

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X S S S S S S S S X X X
                                      A DNA probe (AAT67093) is based on the 3' untranslated region of the mouse K-ATP channel Kir6.2 gene (see also AAT67087), starting at nucleotide +85. Probes (AAT67092-95) based on Kir6.2 and SUR1 sequences were used for in-situ hybridisation analysis of samples from adult rat and mouse brain sections. The probes were designed for least similarity to other subfamily members to minimise cross-hybridisation. The results indicated the the brain K-ATP channel has Kir6.2 (see also AAW17931-32) and SUR1 subunits.
Sequence 45 BP; 11 A; 18 C; 7 G; 9 T; 0 other;
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B
                   γ
                                            Matches
                                                               Query Match
23 GGGTGCGAGCCTCTTG
                                                   Match 75.3%; Local Similarity 87.5%;
                   2 gcgtgcgaccctcttg 17
                                        14; Conservative
                                        0;
                                                Score 12.8; DB 18 Pred. No. 1.1e+03;
                                       Mismatches
                                                            DB 18;
                                                            Length 45;
                                        Indels
                                       0;
                                      Gaps
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0;

Search completed: June 28, 2002, 22:40:12 Job time: 8088 sec



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Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Run on:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Minimum DB seq length: 0
Maximum DB seq length: 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Searched:
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
                  Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                              June 28, 2002, 22:16:45; Search time 334.55 Seconds (without alignments)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-709-170A-8
17
                                                                                                                                                                                                                                                                                                            Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                383533 seqs, 122816752 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 cgcgtgcgaccctcttg 17
GenCore version 4.5
Copyright (c) 1993 - 2000 Comp
                                                                               US-09-286-098-60
US-08-465-4858-9
US-09-080-285-9
US-09-080-285-9
US-08-095-726-25
US-08-095-726-25
US-08-095-726-27
US-08-095-726-27
US-08-095-727-20
US-08-093-577-20
                              US-08-873-479-39
US-08-959-212-11
US-09-031-442A-7
US-09-258-377-7
                                                                                                                                                                                                                                                         US-08-465-485A-8
US-09-080-285-8
US-09-030-701-28
 US-08-974-691-13
                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Compugen Ltd.
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                                                                                                                                                                                                                                   Sequence 8, A
Sequence 8, A
Sequence 28,
Sequence 60,
Sequence 60,
                                                                                                                                                                                Sequence 9, Appli
Sequence 9, Appli
Sequence 25, Appl
Sequence 27, Appl
Sequence 22, Appl
                                                                                                                                                                                                                                                                                                   Description
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Sequence
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10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	11	11	11	11	11.2
63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	63.5	64.7	64.7	64.7	64.7	65.9
54	49	49	49	49	49	33	<b>ω</b>	<b>ω</b>	ω	24	24	21	67	17	17	17	71
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US-08-373-124A-2236	PCT-US93-12388-43	US-08-482-080A-43	US-08-475-228A-43	US-08-123-936-43	US-08-171-389-43	PCT-US95-07135-5	US-09-241-376-12	US-08-744-138-12	US-08-461-030C-5	US-09-225-928-1250	US-08-859-998-1250	US-08-943-/31-256	US-09-025-769B-83	US-08-584-040-7553	US-09-080-285-10	US-08-465-485A-10	US-09-025-769B-95
sequence zzoo, Ap		4 6	43,	43,		, ,	1 -	7,7	ب د ر				יי מיי	0 7		,	

#### ALIGNMENTS

; Sequence 8, Application US/08465485A ; Patent No. 5831066

GENERAL INFORMATION:

APPLICANT:

Reed, John

CORRESPONDENCE ADDRESS

TITLE OF INVENTION: Regulation of bc1-2 Gene Expression NUMBER OF SEQUENCES: 29

US-08-465-485A-8

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; ANTI-SENSE: US-08-465-485A-8
                                                                                                                                                         TELEFAX: (408) 436-20 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 07/288,692
FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                        NAME: FORTNEY, Andrew D.
REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 33:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
TELEPAX: (408) 436-2075
                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0:
FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
TYPE: nucleic acid
                                      MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET: 1755 S. CITY: Arlington STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: FILING DATE: 05-JUN CLASSIFICATION: 514
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                                                       TOPOLOGY: lir
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1755 S. Jefferson Davis Hwy., Suite 400
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                     YES
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                                                       linear
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                                    DNA (genomic)
                                                                            single
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                                                                  Matches
                                                                                                Query Match
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Patent No. 6040181
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                                                                                                                                                                                                                                                                                    TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: (
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                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
TYPE: nucleic acid
                                                                                                                                                                    ANTI-SENSE:
                                                                                                                                                                                      MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 07/288,692 FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 07 FILING DATE: 21-FEB-1992 PRIOR APPLICATION DATA:
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PRIOR APPLICATION DATA:
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                                                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                                    STRANDEDNESS:
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COMPUTER: IBM PC compatible
operATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                     TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                 NAME: Fortney, Andrew D. REGISTRATION NUMBER: 34,600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: FILING DATE:
                 1 cgcgtgcgaccctcttg 17
                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER:
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CGCGTGCGACCCTCTTG 17
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1755 S. Jefferson Davis Hwy., Suite 400
                                                              Conservative
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                                                          100.0%; Score 17; DB 3; Length 17, 100.0%; Pred. No. 0.75; tive 0; Mismatches 0; Indels
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CURRENT FILING DATE: 1998-02-25
PRIOR APPLICATION NUMBER: 60/039,405
PRIOR FILING DATE: 1997-02-28
NUMBER OF SEQ ID NOS: 65
SOFTMARE: FastSEQ for Windows Version 3.0
SEQ ID NO 28
                                                                                                Query Match
Best Local 9
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EARLIER FILING DATE: 1998-04-03
EARLIER OF SEQ ID NOS: 105
                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: Methods and Products for Stimulating the TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and TITLE OF INVENTION: Cytchines FILE REFERENCE: C1039/7026/HCL
                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/286,098
CURRENT FILING DATE: 1999-04-02
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TITLE OF INVENTION: USE OF NUCLEIC ACIDS CONTAINING
TITLE OF INVENTION: UNMETHYLATED CPG DINUCLEOTIDE IN THE TREATMENT OF
TITLE OF INVENTION: LPS-ASSOCIATED DISORDERS
                                                                                                                                                                                                                                                                                                        SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                             ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Krieg, Arthur M
APPLICANT: Schwartz, David
                                                                                                                                                                                                                                                   TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE:
                                                                                                                                                                                                                                                                     LENGTH: 18
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mes 15; Conserv
4 cgcgtgcgaccctct 18
                  1 cgcgtgcgaccctct 15
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                                                                                        88.2%; Score 15; DB 4; 100.0%; Pred. No. 9.5;
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                                                                        Mismatches
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RESULT

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Best Local (
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: 619/678-5099 INFORMATION FOR SEQ ID NO:
                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OPERATING SYSTEM: PC-DO SOFTWARE: ASCII text CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 18 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 08918/012001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 619/678-5070
TELEFAX: 619/678-5099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                   TITLE OF INVENTION: Regulation of bcl-2 Gene Expression NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION: NAME: Haile, Lisa A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
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                                                                                                             STREET: 1755 S. CITY: Arlington STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: U.S. Serial No. 6239116 08/738,652 FILING DATE: October 30, 1996 CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/08/960,774 FILING DATE: 30-October-1997 CLASSIFICATION: 514
                                                                        COUNTRY: UZIP: 22202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
nes 15; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: La Jolla
STATE: CA
COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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1755 S. Jefferson Davis Hwy.,
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APPLICANT: Reed, John
TITLE OF INVENTION: Regulation of bcl-2 Gene Expression
NUMBER OF SEQUENCES: 29
CLASSIFICATION: DATA:
PRIOR APPLICATION UMBER: US 08/
APPLICATION UMBER: US 08/
FILING DATE: 05-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION UMBER: US 08/
EILING DATE: 20-SEP-1993
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 07
APPLICATION NUMBER: US 07
APPLICATION NUMBER: 22-DEC-1988
                                                                                                                                                MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/080,285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION DATA:
PRIOR APPLICATION UNBER: US 08/124,256
                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0:
FILING DATE: 21-FEB-1992
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ANTI-SENSE: Y
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TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                               STREET: 1755 S. CITY: Arlington STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: FILING DATE: 20-SEI
                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                              COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/08/465,485A FILING DATE: 05-JUN-1995
                                                                                                                                                                                                                                                                                    ZIP:
                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: Fortney, Andrew REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 CGCGTGCGACCCTC 17
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                                                                                                                                                                                                                                                                                                                                                      1755 S. Jefferson Davis Hwy., Suite 400
                                                                                                                                                                                                                                                                                                  U.S.A.
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                                                                                                                                                                                                                                                                                                                                                                                            OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              82.4%; Score 14; DB 2; 100.0%; Pred. No. 33;
                       US 08/124,256
                                                                          US 08/465,485
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US-08-095-726-25
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US-09-080-285-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 3335
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
TELEPAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 25,
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Best Local
                                                                   APPLICATION NUMBER: US/08/095,726
FILING DATE: 21-JUL-1993
CILASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/785,566
APPLICATION NUMBER: US 07/785,566
FILING DATE: 30-OCT-191
ATTORNEY/AGENT INFORMATION:
NAME: Galloway, No. 5530188val B
TELECOMMUNICATION INFORMATION:
TELEPHONE: 3128567180
                                      TELEFAX: 3128564972 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL
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APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Yarger, James G
APPLICANT: Yen, Huel-Che B
TITLE OF INVENTION: Beta-Ca
TITLE OF INVENTION: Genetic
NUMBER OF SEQUENCES: 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                             SOFTWARE: Patentin Release #1.24 CURRENT APPLICATION DATA:
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                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: 200 E CITY: Chicago
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 0'
FILING DATE: 22-DEC-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Amoco Corp., Patents and Licensing Dept STREET: 200 E Randolph St
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                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
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31 base pairs
                                                                                                                                                                                                                                                                                                                                                                                               USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mukharji, Indrani
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Brinkhaus, Friedhelm L
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Genetically Engineered Hosts
79
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100.0%; Pred. No.
tive 0; Mismatc
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; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-095-726-25
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В
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                                                            Query Match
Best Local Sir
Matches 14;
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                                                                                                                                                                                                                                                                                                                                                                            OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PATENTIA Release #1.24 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/095,726 FILING DATE: 21-UUL-1993 CLASSIETICATION: 435 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                   TELEPHONE: 3128567180
TELEFAX: 3128564972
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 07/785,566
FILING DATE: 30-0CT-1991
ATTORNEY/AGENT INFORMATION:
NAME: Galloway, No. 5530188val B
TELECOMMUNICATION INFORMATION:
TELEPHONE: 3128567180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Yarger, James G
APPLICANT: Yen, Huei-Che B
TITLE OF INVENTION: Beta-Carotene Biosynthesis in
TITLE OF INVENTION: Genetically Engineered Hosts
NUMBER OF SEQUENCES: 79
CORRESPONDENCE ADDRESS:
Datents and Licensing D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Ausich,
APPLICANT: Brinkhau
APPLICANT: Mukharji
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                                                                                                                                                                        STRANDEDNESS:
TOPOLOGY: lir
                                                                                                                                                                                                    TYPE: nucleic acid
28
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                           1 cgcgtgcgaccctcttg 17
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                                                                           Similarity
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Yarger, James G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         USA
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Mukharji, Indrani
                                                              Conservative
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                                                                                                                                                                            linear
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                                                                                                                                                        DNA (genomic)
                                                                                                                                                                                       single
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                                                                             71.8%;
82.4%;
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Pred. No. 3.4e+02;
                                                                             Score 12.2; DB 1;
Pred. No. 3.4e+02;
                                                              Mismatches
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RESULT 11
US-08-096-043-24/c
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                                                                                                                                                                                                                       Sequence 24, Application US/08096043 Patent No. 5530189
                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC COMPATIBLE
COMPATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.24
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/096,043
FILING DATE: 22-JUL-193
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/785,568
FILING DATE: 30-OCT-1991
ATTORNEY/AGENT INFORMATION:
NAME: GALLOWAY, NO. 5530189val B
TELECOMMUNICATION INFORMATION:
TELEPHONE: 3128567180
TELEPAX: 3128564972
TELEPAX: 3128564972
                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: 3128564972
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                              APPLICANT: Ausich, Koune, APPLICANT: Brinkhaus, Friedhelm L
APPLICANT: Mukhari, Indrani
APPLICANT: Mukhari, John H
APPLICANT: Proffitt, John H
               TITLE OF INVENTION: LY
TITLE OF INVENTION: Ge
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                         APPLICANT: Yen,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
ADDRESSEE: Amoco Corp., P.
STREET: 200 E Randolph St
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APPLICANT: Yen, Huei-Che B
TITLE OF INVENTION: Lycopene Biosynthesis in
TITLE OF INVENTION: Genetically Engineered Hosts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE: DNA (genomic)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: 11
                                                                                                                                                                                                                                                                                                                                                                                                                       Match 71.8%;
Local Similarity 82.4%;
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   ADDRESSEE:
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                                                                                           Yarger, James G
Yen, Huei-Che B
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Proffitt, John H
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Amoco Corp., Patents and Licensing Dept
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                                    Lycopene Biosynthesis in
Genetically Engineered Hosts
70
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Pred. No. 3.4e+02;
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; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-096-043-24
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Best Local
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.24
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/093,577
FILING DATE: 19-JUL-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION DATA:
US 07/785,569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 18,
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APPLICATION NUMBER: US 07/785,568
APPLICATION NUMBER: US 07/785,568
FILLING DATE: 30-OCT-1991
ATTORNEY/AGENT INFORMATION:
NAME: Galloway, No. 5530189val B
TELECOMMUNICATION INFORMATION:
TELEPHONE: 3128567180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
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APPLICANT:
APPLICANT:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: Amoco Corp., Patents and Licensing Dept STREET: 200 E Randolph St
                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.24
CURRENT APPLICATION DATA:
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CITY: Chicago
STATE: IL
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FILING DATE: 22-JUL-1993
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Local Similarity 82.4%;
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Yen, Huei-Che B
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Brinkhaus, Friedhelm L
Mukharji, Ibrani
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                                                                                                                                                                                                                                                                                                                                                    Genetically Engineered Hosts
                                                                                                                                                                                                                                                                                                                                                                       Phytoene Biosynthesis
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   us 07/785,569
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Pred. No. 3.4e+02;
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US-08-093-577-20
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                                                                                                                                        CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/785,569
FILING DATE: 30-OCT-1991
ATTORNEY/AGENT INFORMATION:
NAME: Galloway, No. 5545816val B
TELECOMMUNICATION INFORMATION:
TELEPHONE: 3128567180
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INFORMATION FOR SEQ ID NO:
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TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Release #1.24 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/093,577
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Yen, Huei-Che B
TITLE OF INVENTION: Phytoene Biosynthesis in
TITLE OF INVENTION: Genetically Engineered Hosts
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                                                                                              SEQUENCE CHARACTERISTICS:
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STREET: Chicago
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Local Similarity 82.4%;
                              TOPOLOGY: linear
                                           STRANDEDNESS:
                                                                                                                                                                                                                                                                            APPLICATION NUMBER: FILING DATE: 19-JUI
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                                           nucleic acid
EDNESS: single
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                                                                           31 base pairs
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                                                                                                                                                                                                                                                                             19-JUL-1993
             DNA (genomic)
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Pred. No. 3.
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US-08-096-623A-30
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                                                                                                                NAME: Gamson, Edward P.
REGISTRATION NUMBER: 29,381
REFERENCE/DOCRET NUMBER: AMO-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 655-1501
TELEPAX: (312) 655-1501
INFORMATION FOR SEQ ID NO: 30:
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ADDRESSEE: Welsh & Katz, Ltd.
STREET: 120 S. Riverside Plaza, 22nd Floor
              TOPOLOGY: 1
MOLECULE TYPE:
                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 31 base pairs
                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 28-FEB-PRIOR APPLICATION NUMBER: 1
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APPLICATION NUMBER: US 07/662,921
FILING DATE: 28-FEB-1991
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APPLICATION NUMBER: US 07/805,061
FILING DATE: 09-DEC-1991
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                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                        FILING DATE: 18-MAY-1990
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0:
FILING DATE: 02-MAR-1990
                                                                                                                                                                                                                                                                                                                                            FILING DATE: 03-AUG-1990 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Biosynthesis of Zeaxanthin and TITLE OF INVENTION: Glycosylated Zeaxanthin in Genetically Engineered Hosts NUMBER OF SEQUENCES: 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Yarger, James G. APPLICANT: Yen, Huei-Che B.
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CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
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                                              STRANDEDNESS:
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                                                                  nucleic acid
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Brinkhaus, Friedhelm L.
Mukharji, Indrani
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                                 Linear
              DNA (genomic)
                                              single
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82.4%;
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Pred. No. 3.4e+02;
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Query Match Best Local Similarity

71.8%;

Score 12.2; DB 1; Pred. No. 3.4e+02;

Length 31;

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; TOPOLOGY: linear; MOLECULE TYPE: DNA (genomic) US-08-096-623A-32
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/805,061
FILING DATE: 09-DEC-1991
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 07/662,921
FILING DATE: 28-FEB-1991
PRIOR APPLICATION UNMBER: US 07/562,674
FILING DATE: 03-AUG-1990
PRIOR APPLICATION UNMBER: US 07/525,551
APPLICATION UNMBER: US 07/525,551
APPLICATION UNMBER: US 07/487,613
FILING DATE: 18-MAY-1990
PRIOR APPLICATION UNMBER: US 07/487,613
FILING DATE: 02-MAR-1990
PRIOR APPLICATION UNMBER: US 07/487,613
FILING DATE: 02-MAR-1990
ATTORNEY/AGENT INFORMATION:
NAME: GAMBSOD, Edward P.
REGISTRATION NUMBER: 29-381
REFERENCE/DCCKET NUMBER: AMD-006.1
TELECOMMUNICATION INFORMATION:
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Best Local Similarity
              Matches
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APPLICANT: Brinkhaus, Friedhelm L.
APPLICANT: Mukharji, Indrani
APPLICANT: Mukharji, John H.
APPLICANT: Yarger, James G.
APPLICANT: Yarger, James G.
APPLICANT: Yen, Huei-Che B.
TITLE OF INVENTION: Blosynthesis of Zeaxanthin and
TITLE OF INVENTION: Glycosylated Zeaxanthin in Genetically Engineered Hosts
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPALIBLE
COMPUTER: PISM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/096,623A
FILING DATE: 22-UUL-1993
CLASSIFICATION: 435
CLASSIFICATION: 435
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STREET: 120 S. Riverside Plaza, 22nd Floor
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Search completed: June 28, 2002, 22:16:46 Job time: 8272 sec

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Title:
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 75
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                   June 28, 2002, 22:11:05 ; Search time 3762.88 Seconds (without alignments) 94.542 Million cell updates/sec
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## ALIGNMENTS

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		organism="unknown"	DACE COINE
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		Location/Onalifiers	FEATURES
		Patent: US 5831066-A 9 03-NOV-1998;	JOURNAL
		Regulation of bcl-2 gene expression	TITLE
		Reed, J.C.	AUTHORS
		1 (bases 1 to 17)	REFERENCE
		Unclassified.	
		Unknown.	ORGANISM
		Unknown.	SOURCE
			KEYWORDS
		AR052611.1 GI:5975975	VERSION
		AR052611	ACCESSION
		Sequence 9 from patent US 5831066.	DEFINITION
PAT 29-SEP-1999	linear	AR052611 17 bp DNA	Locus
			AR052611
			RESULT 1

Result No.

Score

Query Match Length DB

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Description

Query Match Best Local Similarity

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Score 17; DB 6; Length 17; Pred. No. 7.6e+02;

SUMMARIES

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RESULT
AR146348
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unknown
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AR154731
AR154731.1 GI:15122784
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Krieg, A.M. and Weiner, G.
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Krieg, A.M. and Kline, J.N.
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Patent: US 6239116-A 60 29-MAY-2001;
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artificial sequence.
1 (bases 1 to 18)
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1 (bases 1 to 18)
2 (munostimulatory nucleic acids
Patent: WO 0122972-A 4 05-APR-2001;
UNIVERSITY OF IOWA RESEARCH FOUNDATION (US); Coley Pharmaceutical
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17; Conserv
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Sequence 56 from Patent W00122972.
AXI03864
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17; Conserv
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Krieg, A.M., Schetter, C. and Vollmer, J.C.
Immunostimulatory nucleic acids
Patent: WO 0122972-A 56 05-APR-2001;
UNIVERSITY OF IOWA RESEARCH FOUNDATION (
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 Weiner,G.
                      artificial sequence
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8 c 4 g
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 and Hartmann, G.
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Pred. No. 7.5e+02;
Pred. No. 7.5e+02;
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Patent: JP 2001503267-A 74 13 MAR-2001;
UNIVERSITY OF IOWA RESEARCH FOUNDATION
OS Artificial Sequence
PN JP 2001503267-A/74
PD 13 MAR-2001
PF 30-OCT-1997 JP 1998520784
PR 30-OCT-1996 US 08/738652
PI ARTHUR M KRIEG, JOEL N KLINE
PC CO7H21/00, CO7H21/02, CO7H21/04, A61K31/1
PC A61K31/70
CC
FH Key Location/Qualifiers
FT source 1. 18
FT source /organism='Artificial
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l Similarity 100.0%;
17; Conservative 0,
               AR052610 17 bp
Sequence 8 from patent US 5831066.
AR052610
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synthetic construct
artificial sequence.
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Krieg, A.M. and Kline, J.N.
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BD009122.1 GI:18637495
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30-CCT-1997 JP 1998520784
30-CCT-1996 US 08/738652
30-CCT-1996 US 08/738652
ARTHUR M KRIEG, JOEL N KLINE
C07H21/00, C07H21/02, C07H21/04, A61K31/175, A61K31/335, A61K31/47,
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/db_xref="taxon:32630"
8 c 4 g
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/db_xref="taxon:32630"
/note="Synthetic oligonucleotide~phosphorothioate
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Pred. No. 7.5e+02;
Mismatches 0;
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Pred. No. 7.5e+02;
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Ito,Y., Nishi,K., Ogi,K., Okubo,S., Mogi
Yoshimura,K. and Tanaka,H.
Novel polypeptide and DNA thereof
Patent: JP 2001069994-A 9 21-MAR-2001;
TAKEDA CHEMICAL INDUSTRIES LTD
OS Artificial Sequence
PN JP 2001069994-A/9
PD 21-MAR-2001
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1. .17
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Sequence 10 from patent US 5831066.
AR052612
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1 (bases 1 to 24)
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synthetic construct
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GO1N33/53//
PC C12P21/
CC CE
FT Key
FT Source
FT /organi
Sequence
AX162817
                                                                                                                                                      l Similarity
14; Conserv
                                                                                                                                                                                                                                                                                                                                                    Shimkets,R.A. and Leach,M.
Nucleic acids containing single nucleotide
methods of use thereof
Patent: WO 0140521-A 6135 07-JUN-2001;
Curagen Corporation (US)
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Sequence 6135 from Patent WO0140521.
AX162807
                           AX162817
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/organism='Artificial Sequence'
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             6145
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/db_xref="taxon:9606"
26
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10 c 5 g
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87.5%;
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Pred. No. 7.9e+04;
0; Mismatches 2;
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Pred. No. 3.1e+04;
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E12921 18 bp DNA Antisense oligonucleotide against WT1 mRNA
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Sequence 6147 from Patent W00140521.
AX162819
                                                                                                                                                                                                                                                                                                                                                                      methods of use thereof Patent: WO 0140521-A 6147 07-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                             Shimkets, R.A. and Leach, M. Nucleic acids containing single nucleotide
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Nucleic acids containing single nucleotide
methods of use thereof
Patent: WO 0140521-A 6145 07-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                         Curagen Corporation (US)
                                                                                                                                                                                                                                                                                                                                                                                                                             Mammalia; Eutheria; Primates;
1 (bases 1 to 51)
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/db_xref="taxon:9606"
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/db_xref="taxon:9606"
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Pred. No. 7.9e+04;
D; Mismatches 2;
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Pred. No. 7.9e+04
0; Mismatches
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Best Local Similarity 86.7%;
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                         OS None
OC Artificial sequences.

PN JP 1997104629-A/1
PD 22-APR-1997
PF 16-MAY-1996 JP 1996144818
PR 01-JUN-1995 JP 95P 156672
PI YAMAGAMI TAMOTSU, INOUE KAZUJI, SUGIYAMA HARUO PC A61K31/70, A61K48/00,C07H21/04;
CC strandedness: Single;
CC topology: Linear;
FH Key Location/Qualifiers
FH Key 1.18
FT source /organism='Artificial sequences'.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            E12921
E12921.1 GI:325175
JP 1997104629-A/1.
unidentified.
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Yamaqami,T., Inoue,K. and Sugiyama,H...
LEUKENIA CELL PROLIFERATION INHIBITING AGENT CONTAINING ANTISENSE OLIGONUCELOFIDE DERIVATIVE AGAINST WILMS TUMOR GENE (WT1)
Patent: JP 1997104629-A 1 22-APR-1997;
RISHIMOTO CHUZO, SUGIYAMA HARUO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 unidentified
                                                                                                                                                                                                                                                                                                                 E21868 The DNA linear PAT 07-FEB-20 Solid tumor remedy comprising expression inhibitor against Wilms tumor (WT1).
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                                                                                                                                                                                                                                                  unclassified.
                                                                                                                                                                                                                                                                            unidentified.
                                                                                                                                                                                                                                                                                          JP 1999035484-A/1.
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/organism='Unidentified'.
Location/Qualifiers
1. .18
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/db_xref="taxon:32644"
2 c 10 g
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Search completed: June 28, 2002, 22:11:06 Job time: 8357 sec
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Matches 13; Conserva
                                                              4 ACCGCATTCGACCCT 18
                                                                         2 accgcgtgcgaccct 16
                                                                                                            Conservative
                                                                                                                                                                                   /organism="unidentified"
/db_xref="taxon:32644"
a 10 c 2 g
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86.7%;
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Pred. No. 3.6e+05;
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Result
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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1: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1980.DAT:*

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3: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1982.DAT:*

3: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1983.DAT:*

4: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1983.DAT:*

6: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1985.DAT:*

6: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1986.DAT:*

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10: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1999.DAT:*

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21: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1999.DAT:*

22: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA1999.DAT:*

23: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA20001.DAT:*

24: /SIDS1/gcgdata/geneseq/geneseqn-emb1/NA2001B.DAT:*

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Best Local S
This sequence represents an unmethylated CpG dinucleotide, and can bused in the method of the invention. The method is for treating a such having, or at risk of having an acute decrement in air flow, comprise administering a nucleic acid sequence containing at least one unmethylated CpG. The nucleic acids containing an unmethylated CpG dinucleotide affect an immune response in a subject by activating nakiller cells (NK) or redirecting a subject's immune response from a to a Thl response by inducing monocytic and other cells to produce T cytokines. They can be used to treat pulmonary disorders having an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Antisense oligonucleotides were tested for their ability to induce programmed cell death (DNA fragmentation) in the human lymphoma celline RS11846. The oligonucleotides phosphodiesters targeted against the translation initiation site (AAQ88650-55) or the 5'-cap region (AAQ86656-58) of human bcl-2 pre-mRNAs. The AAQ86651 oligonucleotide provided pronounced DNA fragmentation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unmethylated CpG dinucleotide; immune response; bacterial meningitis; natural killer cell activation; NK cell; Th2 response; neonatal sepsi; pulmonary disorder; asthma; environmentally induced airway disease; bacterial infection; endotoxaemia; therapy; cystic fibrosis;
                                                                                                                                                                                                                                                                                                                                                                                                            Use
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                                                                                                                                                                                                                                                                                                                                                                              subject
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28-FEB-1997;
                                                                                                                                                                                                                                                                                              Example
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                                                                                                                                                                                                                                                                                                                                                of nucleic acids containing an unmethylated CpG - 1 ject having or at risk of having an acute decrement inhibiting an inflammatory response
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17; Conser
                                                                                                                                                                                                                                                                                           4; Page 35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Schwartz DA
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N3and X4 are selected from TpT or CpT, N is any nucleotide and N1+N2 (0-26 bases with the provision that N1 and N2 does not contain a CCGG tetramer or more than one CCG or CGG trimer. The ODNs activate lymphocytes in a subject and redirect a subject's immune response from a Th2 to a Th1 (e.g. by inducing monocytic cells and other cells to produce Th1 cytokines, including IL-12, IFN-gamma a GM-CSF). The ODNs can be used to treat or prevent an asthmatic disorde
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   immunologic component, such as asthma or environmentally induced airway disease. They can also be used to treat diseases associated with Gram-positive bacterial infections or endotoxaemia including bacterial meningitis, neonatal sepsis, cystic fibrosis, inflammatory bowel disease and liver cirrhosis, Gram-negative pneumonia, Gram-negative abdominal abscess, haemorrhagic shock, disseminated intravascular coagulation, or an inflammatory response to lipopolysaccharide.
                                                                                                                                                        (ODNS) of the invention. The ODNs contain at least one unmethylated Cpd dinucleotide, and have the formula:

5' NIXIGGXNN3 3', where at least one nucleotide separates consecutive CpGs, X1 is adenine, guanine, or thymine, X2 is cytosine or thymine, N is any nucleotide and N1+N2 is 0-26 bases with the provision that N1 and N2 does not contain a CCGG tetramer or more than one CCG or CGG trimer or S' NXIX2CGX3X4N 3', where at least one nucleotide separates consecutive CPGs, X1 and X2 are selected from GPT, GPG, GPA, APT and Apt and N1+N2 is the consecutive CPGs, X1 and X2 are selected from GPT, GPG, GPA, APT and N1+N2 is the consecutive CPGs, X1 and X2 are selected from GPT, GPG, GPA, APT and N1+N2 is the consecutive CPGs, X1 and X2 are selected from GPT, GPG, GPA, APT and Apt are selected from GPT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Immunostimulatory; oligodeoxyribonucleotide; ODN; unmethylated CpG dinucleotide; activate; lymphocyte; immune respons Th2; Th1; cytokine; treatment; prevention; asthma; autoimmune dised desensitisation therapy; artificial adjuvant; antibody generation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 18
                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 49; 109pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1998-272127/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kline JN,
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                                                                                                                                                                                                                                                                                                                                                                                                                             one unmethylated CpG dinucleotide, used for treating
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17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                            infections or autoimmune disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Krieg AM
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                                                                                                                                                                                                                                                                                                         represent immunostimulatory oligodeoxyribonucleotides e invention. The ODNs contain at least one unmethylate
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              antigen specific immune response against a cancer antigen. The methods can also be used to treat neoplastic disorders in humans, including but not limited to: sarcoma, carcinoma, fibroma, Lymphoma, melanoma, neutroblastoma, retinoblastoma, and glioma. The methods are also useful for treating infectious diseases, e.g. viral diseases such as HIV, bacterial diseases, and fungal diseases. The methods may also be used to treat allergic diseases, e.g. asthma. The methods and compositions may also be applied to treat cancer and tumours in non human subjects, e.g. cats and dogs. Neoplasias affecting agricultural livestock may also be treated and include leukaemia, haemangiopericytoma and bovine ocular neoplasia. Chronic, infectious, contagious diseases of sheep and goats caused by the bacterium Corynebacterium pseudotuberculosis, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   antigen, an immunopotentiating cytokine and an immunostimulatory CpG oligonucleotide to induce a synergistic antigen specific immune or one one of the methods are useful for treating cancer by stimulating response. The methods are useful for treating cancer by stimulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequences AAZ41856-Z41949 are phosphorothioate CpG oligonucleotides which are used in the invention to induce interleukin-12 (IL-12) secretion from human PBMC. The invention comprises stimulating an immune response in a subject comprising administering to a subject exposed to an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (IOWA ) UNIV IOWA RES FOUND
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Page 80;
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lisorder; jaagsiekte; B cell; NK cell; ss; cytokine;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          oligonucleotides. The CpG oligonucleotides are able to stimulate the chimane timune system via the activation of immune cells, such as antigen presenting cells, natural killer cells and granuloytes. The CpG oligonucleotides and the method can be used to treat and prevent compounds after in humans, animals and poultry. The oligonucleotides may be administered in conjunction with parasiticides or other therapeutic compounds after conjunction with parasiticides or other therapeutic compounds after an organism has been diagnosed to be infected with parasites. Diseases which can be treated or prevented include those caused by Plasmodium falciparum, P. ovale, P. malariae, P. vivax, P. knowlesi, Babesia comicroti, B. divergens, Trypanosoma cruzi, T. gambiense, T. rhodesiense, Schistosoma mansoni, Toxoplasma gondi, Trichinella spiralis, Leishmania capati, L. donovani, L. brazillensis, and L. tropica. The parasite is especially capable of causing malaria. The present sequence represents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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Best Local
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                              a parasitic infection preventing
                                                                                                                                                                                                                                                                                                                        The present invention describes a method for treating and preventing parasitic infection by administration of unmethylated CPG
                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Page 20; 74pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2000-062123/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gramzinski RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Immune system; immunostimulatory; parasitic infection; paras: CpG oligonucleotide; antigen presenting cell; natural killer granulocyte; malaria; helminth disease; tick; mite; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                       Treating and preventing parasitic infections using CpG oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            06-MAY-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Parasitic infection preventing exemplary oligonucleotide SEQ ID NO:50
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   treated. CpG oligonucleotides can be useful in activating B cells, cells, and antigen presenting cells, such as monocytes and macrophic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (IOWA ) UNIV IOWA RES FOUND (OTTA-) OTTAWA CIVIC LOEB RI
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nes 17; Conser
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              present invention
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                              causing malaria. The present sequence represents preventing exemplary oligonucleotide sequence from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ΑM,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Davis HL,
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Pred. No. 7.3;
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Best Local
                                                                                                                                                                                                      oligonucleotides (ONs) for regulating immune system remodeling and for regulating haematopoiesis. The method for inducing an antigen-specific immune response comprises: (1) administering an ON having a sequence including at least the formula (1); and (2) exposing the subject to an antigen at least 3 days after the ON is administered to the subject to produce an antigen-specific immune response: 5' XICGX2 3' (1), where the ON = includes at least 8 nucleotides; C and G = unmethylated, and X1 and X2 = nucleotides. The method can be used for inducing an immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 18 BP; 2
                                                                              response against an antigen such as cells, cell extracts, proteins, polysaccharides, polysaccharide conjugates, lipids, glycolipids, carbohydrate, viral extracts, viruses, bacteria, fungi, parasites and allergens. It can be used in a subject at risk of developing cancer or an allergic reaction. It can also be used for treating an infectious disease, allergic diseases and asthma, as well as thrombocytopaenia which is drug-induced, due to an autoimmune disorder such as idiopathic which is drug-induced, due to an autoimmune disorder such as idiopathic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAZ47982 standard; DNA; 18
                              thrombocytopenic purpura, or resulting from accidental or therapeutic radiation exposure. It can also be used for treating anaemia such as drug-induced anaemia, immunohaemolytic disorder, genetic disorders such
                                                                                                                                                                                                                                                                                                                                                                                                                                       Use of CpG containing oligonucleotides for, e.g. inducing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wagner H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-MAY-1998;
02-FEB-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      immune response; allergic reaction; infectious disease;
thrombocytopaenia; immunohaemolytic disorder; genetic d
haemoglobinopathy; kidney failure; chronic inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Haematopoiesis;
                                                                                                                                                                                                                                                                                                                                                   The present invention describes a method using CpG containing
                                                                                                                                                                                                                                                                                                                                                                                  Example 1; Page
                                                                                                                                                                                                                                                                                                                                                                                                                   antigen-specific immune response
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Immune remodeling inducing CpG oligonucleotide SEQ ID NO:60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (CPGI-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mmune
                haemoglobinopathy and inherited haemolytic anaemia, inadequate
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17; Conser
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despite adequate iron stores,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           regulation; CpG oligonucleotide; phosphorothioate;
                                                                                                                                                                                                                                                                                                                                                                                  66; 116pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A,
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           chronic inflammatory disorder;
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chronic disease such
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
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kidney
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The present invention describes methods for inducing interleukin 6 (IL-6), interferon-gamma (IFN-gamma) or II-12, or for stimulating CC (attral killer cell lytic activity. The methods comprise administering CC to the subject or exposing a natural killer cell to an immunostimulatory comprising administering to the subject to induce IL-6 in the subject CC comprising administering to the subject to induce IL-6 in the subject the immunostimulatory nucleic acid; (2) stimulating natural killer cell to the CC lytic activity comprising exposing a natural killer cell to the CC immunostimulatory nucleic acid to stimulate natural killer cell lytic activity; (3) inducing interferon-gamma in a subject to treat an immune CC system deficiency comprising administering to the subject to induce interferon-gamma production, the immunostimulatory nucleic acid; and CC interferon-gamma production, the immunostimulatory nucleic acid; and CC interferon-gamma or IL-12 in a subject comprising administering to the subject the immunostimulatory nucleic acid. The methods are useful for inducing CC IL-6, interferon-gamma or IL-12, or stimulating natural killer cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                or anaemia resulting from accidental or therapeutic radiation exposure. _{\rm AAZ47932} to _{\rm AAZ48029} represent phosphorothioate CpG oligonucleotides used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                unmethylated CpG dinucleotide; immune response; B cell proliferation; Th1; immune activation; interleukin 6; IL-6; interferon gamma; IFN-gamma; cytokine; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                             WPI;
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                                                                                                                                                                                                                                                                                                  Disclosure;
                                                                                                                                                                                                                                                                                                                                      nucleic
                                                                                                                                                                                                                                                                                                                                                         Methods for inducing II-6, interferon-gamma or II-12, or stimulating natural killer cell lytic activity in a human, comprise administering to the subject or exposing a natural killer cell to immunostimulatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Krieg AM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (IOWA ) UNIV IOWA RES FOUND.
(COLE-) COLEY PHARM GROUP INC.
(USSH ) US DEPT HEALTH & HUMAN SERVICES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-OCT-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Natural killer cell lytic activity inducing oligonucleotide SEQ ID NO:60.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAH50628;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAH50628 standard; DNA; 18
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                                                                                                                                                                                                                                                                                                                                                       to the subject
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-0CT-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-MAY-2001.
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                                                                                                                                                                                                                                                                                                                                                                                                                               2001-380456/40
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         l Similarity
17; Conser
                                                                                                                                                                                                                                                                                                  Column 32; 74pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         96US-0738652
                                                                                                                                                                                                                                                                                                                                                       or exposing a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97US-0960774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         inflammatory disorder such as rheumatoid arthritis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic; immunostimulatory; tumour; viral infection; bacterial infection; fungal infection; parasitic infection; cancer; asthma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAF98888 standard; DNA; 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27-SEP-1999; 99US-0156135
23-AUG-2000; 2000US-0227436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-JUN-2001
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                                                                                                                                   against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma, haemophilus, campylobacter, clostridium, Escherichia coli and/or staphylococcus), fungal antigens and/or parasitic antigens. The method is staphylococcus, fungal antigens and/or parasitic antigens. The method is also useful for preventing cancer, asthma, infectious disease, allergy or many contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the contents of the co
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-APR-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        infectious disease; allergy; immune deficiency; phosphorothioate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Immunostimulatory nucleic acid #4.
                                                                                                                                                                                                                                                                                        immune response. The present sequence is one such immunostimulatory nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Vaccinating against tumors, infectious diseases, allergies and asthma using immunostimulatory Py-rich and TG nucleic acids -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-273485/28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Krieg AM,
                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to a method for stimulating an immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 38; 338pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (IOWA ) UNIV IOWA RES FOUND
                                                                                       immune deficiency. The present sequence can also be used to redirect a Th2 to a Th1 immune response and to activate immune cells.
                                                                                                                                                                                                                                                                                                                                                                                                         response. The method
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      _
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                                                                                                                                                                                                                                                                                                                                                                                onse. The method comprises administering an immunostimulatory nucleic to a non-rodent subject in sufficient quantity to stimulate an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      l Similarity
17; Conser
                                                        the present sequence may have a phosphorothicate backbone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Schetter C,
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   8 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vollmer J;
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Sequence 18 BP; 2 A;

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Best Local
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27-SEP-1999;
23-AUG-2000;
                                            response. The method comprises administering an immunostimulatory nucleic acid to a non-rodent subject in sufficient quantity to stimulate an immune response. The present sequence is one such immunostimulatory nucleic acid. The immunostimulatory nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich (pyrich) or thymidine (T) rich. The method is used to vaccinate subjects against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae and/or orthomyxoviridae, bacterial antigens (e.g. toxoplasma, haemophilus, campylobacter, clostridium, Escherichia coli and/or staphylococcus), fungal antigens and/or parasitic antigens. The method is also useful for preventing cancer, asthma, infectious disease, allergy or immune deficiency. The present sequence can also be used to redirect a though the present sequence can also be used to redirect a contract of the present sequence can also be used to redirect a contract of the present sequence can activate immune cells.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        infectious disease; allergy; immune deficiency; phosphorothicate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Immunostimulatory nucleic acid #47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-JUN-2001 (first entry)
                                                                                                                                                                                                                                                                                                  Disclosure; Page 39; 338pp; English.
                                                                                                                                                                                                                                                                                                                               Vaccinating against tumors, infectious diseases, allergies and asthmausing immunostimulatory Py-rich and TG nucleic acids -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-SEP-2000;
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Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                               The present invention relates to a method for stimulating an immune
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                                 Note: the present sequence may have a phosphorothioate backbone
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99US-0156135.
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Pred. No. 7.3;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of (I) is claimed in antisense therapy, especially of cancer, viral disease, inflammatory processes or asthmatic, central nervous system or cardiovascular disease. (I) are especially used for therapy of tumors overexpressing the somatostatin receptor (SSTR) (e.g. small-cell lung tumors, breast tumors, brain tumors or other endocrine tumors), but are also useful for treating viral diseases (e.g. herpes simplex-1 infection), inflammatory disease (typical target RNA the adenosine Al receptor), central asthmatic disease (typical target RNA the adenosine Al receptor), central control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of th
                                                                                                                                                                                                                                                                                    nervous system disease (typical target RNA the dopamine receptor) or cardiovascular disease (typical target RNA c-myc). (I) are efficiently taken up by cells and incorporated in target cells (via the SSTR) and are highly selective for cells overexpressing SSTR's. This sequence represents a primer used to illustrate the method of the invention.
                                                                                                                                                                                                             Sequence 20 BP; 2 A; 7 C; 5 G; 6 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This invention describes a novel oligonucleotide conjugate (I) comprising (a) an oligonucleotide, at least part of the sequence of which is complementary to part of an intracellular nucleic acid sequence; and (b) a somatostatin analog. The products of the invention have cytostatic, virucide, antiinflammatory, antiasthmatic and cardiant activity. The use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New conjugates of oligonucleotides with somatostatin analogs, useful in antisense therapy, e.g. of viral, inflammatory or asthmatic disease or especially tumors overexpressing the somatostatin receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 3; Page 9; 16pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-530596/59.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eisenhut M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-FEB-2000; 2000DE-1006572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-FEB-2000; 2000DE-1006572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23-AUG-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DE10006572-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Primer; phosphorothioate; somatostatin; cytostatic; virucide; asthma; antiinflammatory; antiasthmatic; cardiant; antisense therapy; cancer; viral disease; inflammatory process; somatostatin receptor; central nervous system disease; cardiovascular disease; SSTR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          modified_base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unidentified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            proto-oncogene; bcl-2; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Proto-oncogene bcl-2 associated primer SEQ ID 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-0CT-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAH48722 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10
                          16;
                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEUT KREBSFORSCHUNGSZENTRUM.
                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mier W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers 1..20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "phosphorothioate"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mod_base= "OTHER"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /*tag= a
                                                          90.6%;
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                 0
                                                     Score 15.4;
Pred. No. 52;
        Mismatches
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                                                                                    DB 22;
        1,
                                                                                    Length
        Indels
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Gaps
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                                                                                    AAQ86650
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                                                                                                                                                                                Matches
                                                                                                                                                                                          Query Match
Best Local :
Bc1-2 antisense oligonucleotide.
                                                                                                                                                                                                                                                        Antisense oligonucleotides were tested for their ability to induce programmed cell death (DNA fragmentation) in the human lymphoma cell line RS11846. The oligonucleotides are phosphodiesters targeted against the translation initiation site (AAQ86650-55) or the 5'-cap region (AAQ86656-58) of human bcl-2 pre-mRNAs. The AAQ86652 oligonucleotide provided pronounced DNA fragmentation.
                         27-SEP-1995
                                                AAQ86650;
                                                                     AAQ86650 standard; DNA; 17 BP
                                                                                                                                                                                                                                      Sequence 17 BP; 2 A; 8 C; 4 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                               Example 12; Page 33; 108pp; English
                                                                                                                                                                                                                                                                                                                                                                     Anti-code oligomers which bind to bcl-2 mrNA - for the treatment of human solid tumours, esp. breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1995-139394/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-MAR-1995.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO9508350-A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                    Reed JC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          (REED/) REED J C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bcl-2 antisense oligonucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lymphoma; programmed cell death; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAQ86652;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAQ86652 standard; DNA; 17 BP.
                                                                                                12
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                                                                                                                                            1 taccgcgtgcgacc 14
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                                                                                                                               taccgcgtgcgacc 17
                                                                                                                                                                                14;
                                                                                                                                                                                          Similarity
                                                                                                                                                                              Conservative
                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  93US-0124256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        94WO-US10725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note= "3'-5' (antisense) sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /*tag=
                                                                                                                                                                                          82.4%;
100.0%;
                                                                                                                                                                              0;
                                                                                                                                                                                        Score 14;
Pred. No.
                                                                                                                                                                              Mismatches
                                                                                                                                                                             2.9e+02;
hes 0;
                                                                                                                                                                                                   DB 16;
                                                                                                                                                                                                 Length 17;
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AAV28172
                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
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Chen D,
                                                                                                                                                                                                                                                                                                                                                                             Antisense oligonucleotides were tested for their ability to induce programmed cell death (DNA fragmentation) in the human lymphoma cell line RS11846. The oligonucleotides are phosphodiesters targeted against the translation initiation site (AAQ86650-55) or the 5'-cap region (AAQ86656-58) of human bcl-2 pre-mRNAs.
                                                        18-DEC-1997;
                                                                                             W09827425-A1
                                                                                                                 Synthetic
                                                                                                                                    affinity purification; antisense; bcl-2;
                                                                                                                                                                                                      AAV28172;
                                                                                                                                                                                                                          AAV28172 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Anti-code oligomers which bind to bc1-2 mRNA of human solid tumours, esp. breast cancer
                                                                            25-JUN-1998
                                                                                                                                               Purification;
                                                                                                                                                                Antisense oligonucleotide to bcl-2 mRNA.
                                                                                                                                                                                   08-OCT-1998
                                                                                                                                                                                                                                                                                                                                                              Sequence 17
                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 12; Page 33; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1995-139394/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy; lymphoma; programmed cell death; ss.
                   (ISIS-) ISIS PHARM INC.
                                      19-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Reed JC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (REED/) REED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-SEP-1994;
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                                                                                                                                                                                                                                                                                                                       Local Similarity
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                                                                                                                                                                                                                                                                                   4 cgcgtgcgaccctc 17
                                                                                                                                                                                                                                                                         cgcgtgcgaccctc
Cole DL,
                                                                                                                                                                                                                                                                                                                                                              BP; 1 A;
                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ч
                                                                                                                                            oligonucleotide; matrix; affinity unit;
                                     96US-0769951.
                                                        97WO-US23284.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  93US-0124256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94WO-US10725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "3'-5'
Srivatsa GS;
                                                                                                                                                                                                                          DNA;
                                                                                                                                                                                                                                                                          14
                                                                                                                                                                                                                                                                                                                      82.4%;
                                                                                                                                                                                                                                                                                                                                                             7 C;
                                                                                                                                                                                                                          17
                                                                                                                                                                                                                                                                                                                                                            5 G;
                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                       Score 14;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (antisense) sequence"
                                                                                                                                                                                                                                                                                                                                                             4 T; 0 other;
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                                                                                                                                                                                                                                                                                                                      .9e+02;
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                                                                                                                                                                                                                                                                                                                               Length 17;
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV28155-268 represent oligonucleotides which can be purified using the method of the invention. The specification describes a matrix that comprises a support and an affinity unit that specifically and reversibly binds a target oligonucleotide, and comprises a sequence of bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative diseases, for treating a non-pathogen, non-hyperproliferative diseases, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic pathogen, retrovirus or other viruses.
            AAV28155-268 represent oligonucleotides which can be purified using method of the invention. The specification describes a matrix that comprises a support and an affinity unit that specifically and reversibly binds a target oligonucleotide, and comprises a sequence
                                                                                                                  Matrix for selective separation of oligo:nucleotide - useful for e.g. large scale purification of anti-sense agents from their deletion derivatives formed during synthesis
                                                                                                                                                                                                              Chen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matrix for selective separation of oligo:nucleotide - useful for, e.g. large scale purification of anti-sense agents from their deletion derivatives formed during synthesis
                                                                                     Disclosure; Page 79; 183pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                            affinity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        08-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI;
                                                                                                                                                                                                                                            (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                          19-DEC-1996;
                                                                                                                                                                                                                                                                                                                                    25-JUN-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                           Purification;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Antisense oligonucleotide to bcl-2 mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAV28173;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAV28173 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 17 BP; 1 A; 7 C; 5 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 79; 183pp; English.
                                                                                                                                                                                                                                                                                                      18-DEC-1997;
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                                                                                                                                                                                                              'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cgcgtgcgaccctc 17
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having the reverse complement of a hybridising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                             purification; antisense;
                                                                                                                                                                                                              Cole DL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                           oligonucleotide; matrix;
                                                                                                                                                                                                                                                                          96US-0769951.
                                                                                                                                                                                                                                                                                                      97WO-US23284.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA; 17 BP
                                                                                                                                                                                                              Srivatsa GS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              82.4%; June 100.0%; Pro 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 14;
Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                               bc1-2;
                                                                                                                                                                                                                                                                                                                                                                                                                                           affinity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 19; I
. 2.9e+02;
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portion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
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RESULT 1
AAV28174
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XX AAV2
AC AAV2
XX AAV2
AC AAV2
XX AAV2
XX AAV4
XX AAV4
XX AAV4
XX AAV4
AC COMET
AC COMET
CC SYN
CC SYN
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                                                                                                                                                                              AAV28155-268 represent oligonucleotides which can be purified using the method of the invention. The specification describes a matrix that comprises a support and an affinity unit that specifically and reversibly binds a target oligonucleotide, and comprises a sequence of bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative diseases, for treating a non-pathogen, non-hyperproliferative disease, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic pathogen, retrovirus or other viruses.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matrix for selective separation of oligo:nucleotide - useful e.g. large scale purification of anti-sense agents from their deletion derivatives formed during synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Page 80;
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Search completed: June 28, 2002, 22:40:13 Job time: 8089 sec

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US-08-465-485A-10
US-08-060-285-10
US-09-080-285-10
US-08-952-664-2
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## ALIGNMENTS

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RESULT 1
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GENERAL INFORMATION:
                                                                                                                                       INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: LBM PC compatible
COMPUTER: LBM PC compatible
COMPUTER: BM PC COMPATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US
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                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                    FILING DATE: 21-FEB-1992 PRIOR APPLICATION DATA:
                                                                                                    SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
                                                                                                                                                                                                                                                 FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
                   ANTI-SENSE:
                                 MOLECULE TYPE:
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ZIP: 22202
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STATE: Virginia
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                                                                                                                                                   : (408) 436-2070
(408) 436-2075
                     YES
                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT
                                   DNA (genomic)
                                                                 single
                                                                                                                                                                                                                                                                                        US 07/288,692
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US-09-080-285-9
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                                                                            Query Match
Best Local
                                                               Matches
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Best Local 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                          TOPOLOGY: 1
MOLECULE TYPE:
                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                      REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 3335-070-55 CONT
TELECOMMUNICATION INFORMATION:
                                                                                                                                                           ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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STREET: Arlington
CITY: Arlington
TMATE: Virginia
TMATE: T S.A.
                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FEB-1992
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APPLICATION NUMBER: US 08/124,256
FILING DATE: 20-SEP-1993
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APPLICATION NUMBER: US 08/465,485
FILING DATE: 05-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: CLASSIFICATION:
                                                                                                                                                                                                         STRANDEDNESS:
                                                                                                                                                                                                                                                                                                       TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                           NAME:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/09/080,285
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ZIP: 22202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE:
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             taccgcgtgcgaccctc 17
                                                             l Similarity
17; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3: P.C.
1755 S. Jefferson Davis Hwy., Suite 400
                                                           Conservative
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                                                                                                                                                                                        linear
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                                                                                                                                                             YES
                                                                                                                                                                                                                                                                                                         (408) 436-2070
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                                                                                                                                                                         DNA (genomic)
                                                                                                                                                                                                       single
                                                                       100.0%; Score 17; DB 3; Length 17; 100.0%; Pred. No. 2.1;
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                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and TITLE OF INVENTION: Cytokines
FILE REFERENCE: C1039/7026/HCL
CURRENT APPLICATION NUMBER: US/09/286,098
CURRENT FILING DATE: 1999-04-02
EARLIER APPLICATION NUMBER: US 60/080,729
EARLIER FILING DATE: 1998-04-03
NUMBER OF SEQ ID NOS: 105
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 60
LENGTH: 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 28
LENGTH: 18
TYPE: DNA
                                                                          Query Match
Best Local Similarity
Matches 17; Conserv
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APPLICANT: Schwartz, David A.
TITLE OF INVENTION: USE OF NUCLEIC ACIDS CONTAINING
TITLE OF INVENTION: UNNETHYLATED CPG DINUCLEOTIDE IN THE TREATMENT OF
TITLE OF INVENTION: LPS-ASSOCIATED DISORDERS
FILE REFERENCE: C1039/7011
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
TITLE OF INVENTION: Methods and Products for Stimulating the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: LPS-ASSOCIATED DISORDERS FILE REFERENCE: C1039/7011
CURRENT APPLICATION NUMBER: US/09/030,701B
CURRENT FILING DATE: 1998-02-25
PRIOR APPLICATION NUMBER: 60/039,405
PRIOR FILING DATE: 1997-02-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                           ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE:
                                                                                                                                                                                                                                                                  TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Artificial Sequence FEATURE:
1 taccgcgtgcgaccctc 17
                     1 taccgcgtgcgaccctc 17
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                                                                                 Conservative
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                                                                                                100.0%; Score 17; DB 100.0%; Pred. No. 2.1;
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                                                                               Mismatches
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                                                                                                                   DB 4; Length 18;
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US-08-960-774-60

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US-08-960-774-60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 17; Conserv
                                                                                                                                                                                                                                                                                               Sequence 8, Application US/08465485A Patent No. 5831066
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                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: 619/678-5099 INFORMATION FOR SEQ ID NO:
COUNTRY: U.S.A.
ZIP: 22202
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compartible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Haile, Lisa A.
REGISTRATION NUMBER: 38,347
REFERENCE/DOCKET NUMBER: 08
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 29
                                                                                                                                                                                                                                         APPLICANT: Reed, John TITLE OF INVENTION: R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER: U.S. Serial No. 6239116
FILING DATE: October 30, 1996
CLASSIFICATION: 514
CLASSIFICATION: 514
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: Haile, Lisa A.
                                                                                                               STREET: 1755 S. CITY: Arlington STATE: Virginia
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TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/960,774 FILING DATE: 30-October-1997 CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OPERATING SYSTEM: PC
SOFTWARE: ASCII text
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER:
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                                                                                                                                                                      ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: nucleic acid
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                                                                                                                                         E: P.C.
1755 S. Jefferson Davis Hwy., Suite 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 17; DB ilarity 100.0%; Pred. No. 2.1; Conservative 0; Mismatches
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                    OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT
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INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
TYPE: nucleic acid
STRANDENESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 10, Application US/08465485A Patent No. 5831066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/288,692
FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
NAME: FORTING NUMBER: 34,600
REGISTRATION NUMBER: 34,600
                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION: APPLICANT: Reed,
                                           CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08,
FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
                                                                                                                                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/465,485A
FILING DATE: 05-UN-1995
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APPLICATION NUMBER: US 08/124,256
FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                          COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 29
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ANTI-SENSE: YES
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TELECOMMUNICATION INFORMATION:
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PRIOR APPLICATION DATA
                                                                                                                                                                                                                                                                                                        STREET: 1755 S. CITY: Arlington STATE: Virginia
                                                                                                                                                                                                                                                                                                              FILING DATE: 05
CLASSIFICATION:
                                                                                                                                                                                                                                                                             COUNTRY: U.S.A.
ZIP: 22202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Match 82.4%; Score 14; DB 2; Local Similarity 100.0%; Pred. No. 72;
                APPLICATION NUMBER: US 07/840,716 FILING DATE: 21-FEB-1992
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                                                                                 US 08/124,256
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US-09-080-285-8
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Best Local
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REFERENCE/DOCKET NUMBER: 3335-070-55 CONT
TELECOMMUNICATION INFORMATION:
NAME: Fortney, Andrew D.
REGISTRATION NUMBER: 34,600
REBERRICE/DOCKET NUMBER: 3335-070-55 CONT
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
                                                                                                                                                                                                                                                            CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
FILING DATE: 05-JUN-1995
                                                                                    APPLICATION NUMBER: US 0 FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
                                                                                                                                      APPLICATION NUMBER: US 0
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                        FILING DATE: 20-SEP-
PRIOR APPLICATION DATA:
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SOFTWARE: PatentIn Release #1.0, Version #1.25
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                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/09/080,285 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Arlington STATE: Virginia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
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100.0%; Pred. No.
                                                                                                                                                                                                                             US 08/124,256
                                                                                                                                                                           US 07/840,716
                                                                                                                         US 07/288,692
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US-09-080-285-10
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                                                                                                                 TELEFAX: (408) 436-2075 INFORMATION FOR SEQ ID NO:
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         TOPOLOGY: 11
MOLECULE TYPE:
ANTI-SENSE: YE
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APPLICATION NUMBER: U
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                                                                                                   SEQUENCE CHARACTERISTICS:
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APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                       TYPE:
                                                                                                                                                                                            NAME: Fortney, Andrew D. REGISTRATION NUMBER: 34,
                                                                                                                                                                                                                                                                                                                                FILING DATE:
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1755 S. Jefferson Davis Hwy., Suite 400
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                                                                                                                                               (408) 436-2070
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100.0%; Pred. No.
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Patent No. (
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Best Local Similarity
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                                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 25,258
REFERENCE/DOCKET NUMBER: 053466/0223
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 672-5300
TELEFAX: (202) 672-5399
INFORMATION FOR SEQ ID NO: 1:
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APPLICANT:
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FILING DATE: 24-MAY-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 7-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 18 base pairs
                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 01-JUN-1995
ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
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                                                                                Local Similarity
                                                                                                                                                                                                             STRANDEDNESS: single
                                                                                                                                                                                                                             TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                               NAME: Wegner, Harold C. REGISTRATION NUMBER: 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08/952,664 FILING DATE: 01-DEC-1997
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                             2 accecttgcgaccct 16
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ACCGCATTCGACCCT 18
                                                               13;
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YAMAGAMI, Tamotsu
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                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              82.4%; Score 14; ilarity 100.0%; Pred. No. Conservative 0; Mismatci
                                                                                                                                                                                              linear
                                                                                                                                                            other nucleic acid
/desc = "Synthetic DNA"
                                                                             69.4%;
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COMPRISING ANTISENSE OLIGONUCLEOTIDE DERIVATIVE TO WILMS
                                                                                                                                                                                                                                                                                                                                                                                                                                 JP 7-156672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PCT/JP96/01394
                                                            Score 11.8; DB 3;
Pred. No. 9.6e+02;
0; Mismatches 2
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                                                             Indels
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RESULT

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US-09-487-874-1
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                                                                                                                                                              Sequence 1, Application US/09487874 Patent No. 6277832
                                                                                                                                                                                                                                                                                                                                                   Matches
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                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                              GENERAL INFORMATION:

APPLICANT: SUGIYAMA, Haruo
APPLICANT: YAMAGAMI, Tamotsu
APPLICANT: INOUE, Kazushi
TITLE OF INVENTION: GROWTH INHIBITOR FOR LEUKEMIA CELLS
TITLE OF INVENTION: GOMPRISING ANTISENSE OLIGONUCLEOTIDE DERIVATIVE TO WILMS
TITLE OF INVENTION: TUMOR GENE (WT1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: (202) 672-5399
INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: JP 7-1
FILING DATE: 01-JUN-1995
ATTORNEY/AGENT INFORMATION:
NAME: Wegner, Harold C.
REGISTRATION NUMBER: 25,25
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APPLICANT:
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DESCRIPTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 05
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 672-5300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/JP96/01394
FILING DATE: 24-MAY-1996
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
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ADDRESSEE: FOLEY & LARDNER
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ZIP:
                                                                                                                                                                                                                                                                         15 ACCGCATTCGACCCT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/08/952,664 FILING DATE: 01-DEC-1997 CLASSIFICATION: 514
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TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE:
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20007-5109
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YAMAGAMI, Tamotsu
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/desc = "Synthetic DNA"
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                                                                                                                                                                                                                                                                                                                                                                   69.4%;
86.7%;
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STREET: 3000 K SU CITY: Washington

3000 K Street, N.W.

FOLEY & LARDNER

ADDRESSEE:

STATE:

D.C.

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US-09-487-874-2/c
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TELEPHONE: (202) 672-5399
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 18 base pairs
                                                                                                                                                                                                                                                                                                                                                                              Patent No.
                                                                                                                                                                                                                                                                                                                                                                              Sequence 2, Application US/09487874 Patent No. 6277832
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
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             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                         APPLICANT: SUGIYAMA, Haruo
APPLICANT: YAMAGAMI, Tamotsu
APPLICANT: INOUE, Kazushi
TITLE OF INVENTION: GROWTH INHIBITOR FOR LEUKEMIA CELLS
TITLE OF INVENTION: COMPRISING ANTISENSE OLIGONUCLEOTIDE DERIVATIVE TO WILMS
TITLE OF INVENTION: TUMOR GENE (WTI)
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DESCRIPTION:
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CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
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ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER:
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PRIOR APPLICATION NUMBER:
                                                                                                                                           STREET: 3000 K S: CITY: Washington STATE: D.C.
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TYPE: nucleic acid
STRANDEDNESS: sing!
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                         COUNTRY: U.S.A. ZIP: 20007-5109
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REGISTRATION NUMBER: 2
                                                                                                                                                                                               ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
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20007-5109
                                                                                                                                                                            3000 K Street, N.W.
                                                                                                                                                                                               FOLEY & LARDNER
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/desc = "Synthetic
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86.7%;
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Pred. No. 9.6e+02;
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Patent No.
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TELEFAX: (202) 672-5399
INFORMATION FOR SEQ ID NO: 2:
                                                   APPLICATION NUMBER: US/08/095,726
FILING DATE: 21-JUL-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/785,566
FILING DATE: 30-007-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: 1: MOLECULE TYPE:
             FILING DATE: 30-OCT-1991
ATTORNEY/AGENT INFORMATION:
NAME: Galloway, No. 5530188val B
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: JP 7-156672 FILING DATE: 01-JUN-1995 ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                     OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Palan-
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TYPE: nucleic acid
STRANDEDNESS: single
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REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                              STATE:
                                                                                                                                                                                                                                                                                                           CITY: Chicago
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/09/487,874 FILING DATE:
TELEPHONE:
                                                                                                                                                                                                                                                            COUNTRY: USA
ZIP: 60680-0703
                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DESCRIPTION:
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o. 5530188
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                                                                                                                                                                                                                                                                                                                           E: Amoco Corp., P
200 E Randolph St
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Mukharji, Indrani
                                                                                                                                                                                                                                                                                                                                                                                                                          Yarger, James G · Yen, Huei-Che B
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         Proffitt, John H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ausich,
                                                                                                                                                                             PatentIn Release #1.24
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3128567180
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/desc = "Synthetic DNA"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        69.4%;
86.7%;
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                                                                                                                                                                                                                                                                                                                                            Patents and Licensing Dept
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Pred. No. 9.6e+02;
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TELEFAX: 3128564972
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 31 base pairs

25:

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LENGTH: 31 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
US-08-095-726-25
                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 31 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
US-08-095-726-27
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: Sequence 27, Application US/08095726

: Patent No. 5530188
                     Query Match
Best Local Similarity
Watches 12; Conserva
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APPLICANT: Brinkhaus, Friedhelm L
APPLICANT: Mukharji, Indrani
APPLICANT: Warder, John H
APPLICANT: Yarger, James G
APPLICANT: Yen, Huei-che B
TITLE OF INVENTION: Beta-Carotene Biosynthesis in
TITLE OF INVENTION: Genetically Engineered Hosts
NUMBER OF SEQUENCES: 79
CORRESPONDENCE ADDRESS:
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Best Local Similarity 92.3%;
Matches 12; Conservative
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                          COMPUTER READALE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.24
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/095,726
FILING DATE: 21-JUL-1993
CLASSIFICATION DATA:
APPLICATION UMBER: US 07/785,566
FRICH APPLICATION DATA:
APPLICATION UMBER: US 07/785,566
FILING DATE: 30-OCT-1991
ATTORNEY/AGENT INFORMATION:
NAME: Galloway, No. 5530188val B
TELECOMMUNICATION INFORMATION:
TELEPHONE: 3128567180
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INFORMATION FOR SEQ ID NO:
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CITY: Chicago
STATE: IL
COUNTRY: USA
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92.3%;
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Search completed: June 28, 2002, 22:16:47 Job time: 8273  $\sec$ 

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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 75
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Perfect score:
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Query
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1: gb_ba:*

2: gb_htg:*

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13: gb_u:*

14: gb_vi:*

15: em_fun:*

16: em_fun:*

17: em_hum:*

20: em_om:*

21: em_om:*

22: em_om:*

23: em_pat:*

24: em_ph:*

25: em_ph:*

26: em_ro:*

27: em_bat:*

28: em_pt:*

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30: em_htg_hu

31: em_htg_in

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32: em_htg_in
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Copyright (c) 1993 - 2000 Compugen Ltd.
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## ALIGNMENTS

DEFINITION S ACCESSION A VERSION A VERSION A VERSION D SOURCE SOURCE ORGANISM U REFERENCE I AUTHORS R TITLE AUTHORS R JOURNAL P FEATURES SOURCE BASE COUNT ORIGIN  Query Match Best Local	AR052612 LOCUS
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10 from patent US 5  1 GI:5975976  1 GI:5975976  1 to 17)  n of bcl-2 gene exp is 5831066-A 10 03 N Location/Qualifiers 1. 17 /organism="unknown" /organism="unknown" 4 g  100.0%; Score ty 100.0%; Score	
ont US 5831  6  ene expres 11 (03-NOV- lifiers 14 g  Score 17	17 bp
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DEFINITION
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Sequence 9 from patent US 5831066.
AR052611
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Krieg, A.M. and Weiner, G.
Methods and products for stimulating the immune system using
immunotherapeutic oligonucleotides and cytokines
Patent: US 6218371-A 60 17-APR-2001;
                                                                                                                                   18 bp
Sequence 4 from Patent WO0122972.
AXIO3812
                      synthetic construct artificial sequence.
1 (bases 1 to 18)
Krieg, A.M., Schetter, C. and Vollmer, J.C. Immunostimulatory nucleic acids Patent: WO 0122972-A 4 05-APR-2001; UNIVERSITY OF IOWA RESEARCH FOUNDATION (
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Krieg, A.M. and Kline, J.N.
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                                                                                           Patent: WO 0197843-A 485 27-DEC-2001;
UNIVERSITY OF IOWA RESEARCH FOUNDATION (US)
                                                                                                                                                                    synthetic construct artificial sequence.
                                                                                                                                             Weiner, G.
                                                                                                                                                                                             synthetic construct.
                                                                                                                                                                                                                     AX355457.1 GI:18620125
                                                                                                                        cancer
                                                                                                                               Methods for enhancing antibody-induced cell lysis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 (bases 1 to 18)
Krieg.A.M., Schetter,C. and Vollmer,J.G.
Immunostinulatory nucleic acids
Patent: WO 0122972-A 56 05-APR-2001;
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Sequence 56 from Patent WO0122972.
AX103864
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                                             /organism="synthetic construct"
/db_xref="taxon:32630"
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Best Local Similarity 100.
Matches 14; Conservative
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Novel polypeptide and DNA thereof Patent: JP 2001069994-A 9 21-MAR-2001; TAKEDA CHEMICAL INDUSTRIES LTD OS Artificial Sequence PN JP 200106994-A/9 PD 21-MAR-2001
                                                                                                                                                                                                                                                                                                                                 14;
                                                                            artificial sequence.

1 (bases 1 to 24)

Ito, Y., Nishi, K., Ogi, K., Okubo, S.,
Yoshimura, K. and Tanaka, H.
                                                                                                                               synthetic construct.
synthetic construct
                                                                                                                                                         JP 2001069994-A/9
                                                                                                                                                                                    Novel polypeptide and DNA BD010808
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PD 13-MAR-2001
                                                                                                                                                                       BD010808.1 GI:18639181
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Krieg, A.M. and Kline, J.N.
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C07H21/00, C07H21/02, C07H21/04, A61K31/175, A61K31/335, A61K31/47,
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30-OCT-1996 US 08/738652
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/db_xref="taxon:32630"
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Location/Qualifiers
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100.0%;
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100.0%; Pred. No.
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                                                                                        Mogi, S., Noguchi, Y.,
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PC C12P21/CCC
FH Key
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Sequence 337 from Patent W00069898.
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synthetic
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Location/Qualifiers
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1 (bases 1 to 27)
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                                            AX049833.1 GI:12226261
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YASUAKI ITO, KAZUNORI NISHI, KAZUHIRO OGI, SHOICHI OKUBO, PI
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/db_xref="taxon:32630"
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                      Patent: WO 8606635-A 1 20-NOV-1986;
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2E 1 (bases 1 to 30)

RS Russell-Jones,G.John, Howe,P., de Aizpurua,H.James and Rand,K.Norman.

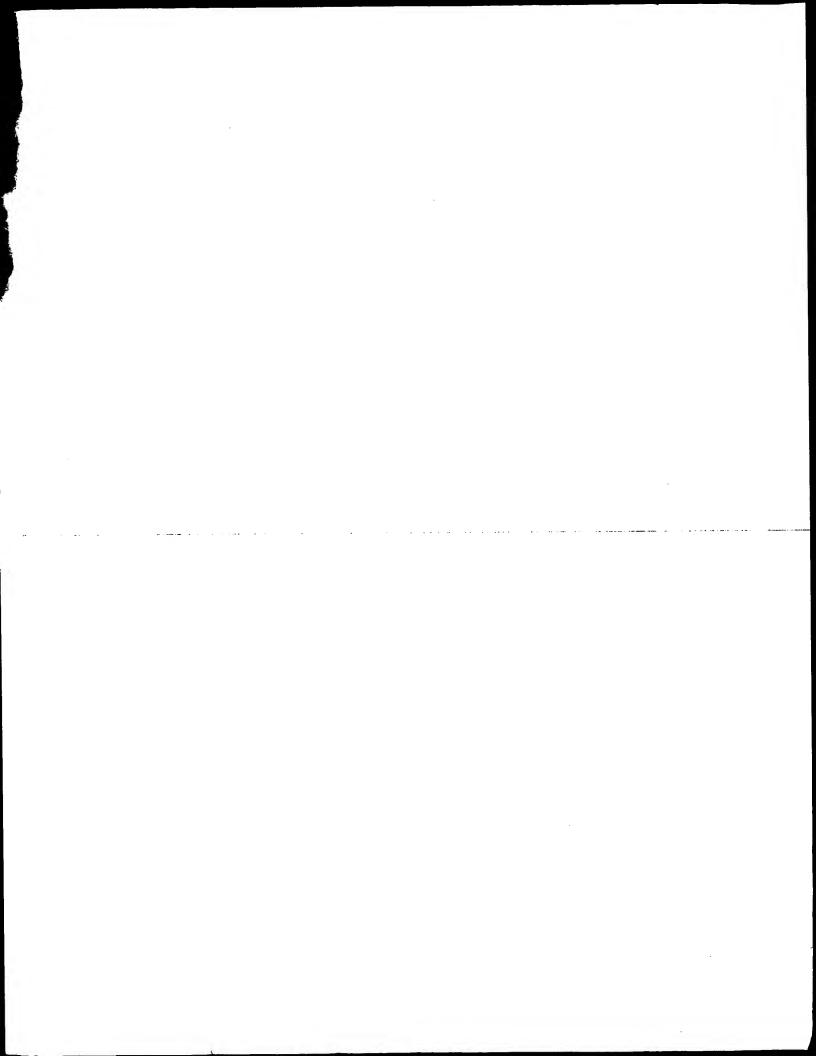
Oral vaccines

Oral vaccines

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                     AAV28155-268 represent oligonucleotides which can be purified using the method of the invention. The specification describes a matrix that comprises a support and an affinity unit that specifically and reversibly binds a target oligonucleotide, and comprises a sequence of bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative diseases, for treating a non-pathogen, expression of cell surface proteins, and to inhibit a eukaryotic
                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 79; 183pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                         deletion derivatives formed during synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                              Matrix for selective separation of oligo:nucleotide - useful for e.g. large scale purification of anti-sense agents from their
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1998-362922/31.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 17 BP; 2 A; 8 C; 4 G; 3 T; 0 other;
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                                   AAV28155-268 represent oligonucleotides which can be purified using the method of the invention. The specification describes a matrix that comprises a support and an affinity unit that specifically and reversibly binds a target oligonucleotide, and comprises a sequence of bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment non-hyperproliferative diseases, for treating a non-pathogen, non-hyperproliferative disease, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic
Sequence 17 BP; 2 A; 8 C; 4 G; 3 T; 0 other;
                              pathogen, retrovirus or other viruses
                                                                                                                                                                                                                           Matrix for selective separation of oligo:nucleotide - useful for. e.g. large scale purification of anti-sense agents from their deletion derivatives formed during synthesis
                                                                                                                                                                                                    Disclosure; Page 80; 183pp; English.
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 AAX23686;
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                                AAX23686 standard; DNA; 17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          using oligodeoxynucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example
AAX18694;
                                                     AAX18694 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                          Local
                                                                                                                                                                                                 Н
                                                                                                                                                                                                                      1 tectacegegtgegace 17
                                                                                                           6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        its reverse complement is not modified, the method may be performed
                                                                                                                                                                                              tectacegegtgegace
                                                                                                                                                                                                                                                                                                         1 Similarity
17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9; Page 149; 163pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         oligonucleotides
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP; 2 A; 8 C; 4 G; 3 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97US-0923771
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                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                        BP
                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                          Score 17; DB 20; Pred. No. 5.9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          0 other
                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                    Length 17;
                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                  Gaps
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10-MAY-1999

(first entry)

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XXW XXX XXX XXX
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                        Matches
                          alimentary canal; transport; gastrointestinal mucosa; cancer; Alzheimer's disease; beta-thalassemia; malaria; viral infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (ii) to investigate the role of a gene or gene product in non-human animals; and (iii) to modulate gene expression in cells, tissues or organs. The compositions provide bioavailability of at least 15, preferably 17-35,%. The penetration enhancer improves: (i) transport of the nucleic acid across the mucosa of the alimentary canal and into cells; and (ii) increases stability of the nucleic acid. Oral administration avoids the complications and expense of intravenous or other methods of administration. AAX18669 to AAX18799 and AAX18801 represent antisense oligonuclectides which can be used as the nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A pharmaceutical composition has been developed which comprises a nucleic acid and at least one penetration enhancer. The compositions used: (1) to treat or prevent any disease or disorder that can be treated with the nucleic acid, e.g. cancer, Alzheimer's disease, beta-thalassemia, malaria, viral infections (including human immune beta-thalassemia, malaria, viral infections (including human immune)
                                                          Cellular adhesion protein; proliferation; antisense oligonucleotide,
                                                                                             Target bcl-2 antisense oligonucleotide #27.
                                                                                                                                   10-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Composition comprising nucleic acid and penetration enhancer - use particularly for delivering therapeutic antisense oligonucleotides across the gastrointestinal mucosa, provides high bioavailability
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HIV;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cellular adhesion protein; proliferation; antisense oligonucleotide; alimentary canal; transport; gastrointestinal mucosa; cancer; Alzheimer's disease; beta-thalassemia; malaria; viral infection;
                                                                                                                                                                                                 AAX18695 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       acid in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     deficiency virus (HIV)), inflammation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 2; Page 84; 115pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-106077/09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hardee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-JAN-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Target bcl-2 antisense oligonucleotide #26
                                                                                                                                                                                                                                                                                                     1 tcctaccgcgtgcgacc 17
                                                                                                                                                                                                                                    7
              inflammation;
                                                                                                                                                                                                                                                                                  tcctaccgcgtgcgacc 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                inflammation; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                       ВP;
                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97us-0886829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98WO-US13574
                                                                                                                                                                                                                                                                                                                                                                                                                                       2
                                                                                                                                                                                                                                                                                                                                                                                                                                    A; 8 C; 4 G; 3 T; 0 other;
               SS
                                                                                                                                                                                                   DNA;
                                                                                                                                                                                                                                                                                                                                                                      100.0%;
                                                                                                                                                                                                                                                                                                                                                                    .0%;
                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                    Score 17;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       in human or animal medicine;
                                                                                                                                                                                                                                                                                                                                                                    5.9;
                                                                                                                                                                                                                                                                                                                                                                                  DB 20;
                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                  Length 17;
                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  compositions
                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                 Gaps
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                                                                                                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               deficiency virus (HIV)), inflammation, in human or animal medicine; (ii) to investigate the role of a gene or gene product in non-human animals; and (iii) to modulate gene expression in cells, tissues or organs. The compositions provide bioavailability of at least 15, preferably 17-35.%. The penetration enhancer improves: (i) transport of the nucleic acid across the mucosa of the alimentary canal and into cells; and (ii) increases stability of the nucleic acid. Oral administration avoids the complications and expense of intravenous or other methods of administration. AAX18669 to AAX18799 and AAX18801 represent antisense oligonucleotides which can be used as the nucleic
 W09508350-A
                                                       misc_feature
                                                                                                  Synthetic
                                                                                                                                              Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapleukemia; lymphoma; solid tumor; breast cancer; autoimmune disease;
                                                                                                                                                                                         Antisense oligomer TI-AS
                                                                                                                                                                                                                                                    AAQ86643;
                                                                                                                                                                                                                                                                              AAQ86643 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nucleic acid and at least one penetration enhancer. The compositions are used: (i) to treat or prevent any disease or disorder that can be treated with the nucleic acid, e.g. cancer, Alzheimer's disease, beta-thalassemia, malaria, viral infections (including human immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Composition comprising nucleic acid and penetration enhancer - use particularly for delivering therapeutic antisense oligonucleotides across the gastrointestinal mucosa, provides high bioavailability
                                                                                                                                                                                                                        27-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A pharmaceutical composition has been developed which comprises
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 2; Page 85; 115pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-106077/09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO9901579-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic.
                                                                                                                                                                                                                                                                                                                                                          ш
                                                                                                                                                                                                                                                                                                                                                                                    1 tectacegegtgegace 17
                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                       tectacegegtgegace
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP;
                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97US-0886829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 A; 8 C; 4 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-US13574
                                      Location/Qualifiers
1..20
/*tag=_a
                        /note= "3'-5' (antisense) sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                                                                                                                 ΒP
                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                              Score 17; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3 T;
                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                               5.9;
                                                                                                                                                                                                                                                                                                                                                                                                                                            BB
                                                                                                                                                                                                                                                                                                                                                                                                                                             20;
                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 17
                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                0;
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RESULT
AAV28169
ID AAV2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The antisense oligonucleotide TI-AS straddles the translation-initiation site in the mRNA coding strand of the human bcl-2 gene and is complementary to this region. It reduces the expression of bcl-2 gene product thereby inducing programmed cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 13; 108pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of human solid tumours, esp. breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Anti-code oligomers which bind to bcl-2 mRNA -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1995-139394/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Reed JC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (REED/) REED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 20 BP; 2 A; 10 C; 4 G; 4 T; 0 other;
                                                   Matrix for selective separation of oligo:nucleotide - e.g. large scale purification of anti-sense agents fro deletion derivatives formed during synthesis
                                                                                                                                                                                                                                                             affinity purification;
                                                                                                                                                                                                                                                                                           Antisense oligonucleotide to bcl-2 mRNA.
                                                                                                                                                                                                                                                                                                                                                          AAV28169 standard; DNA;
AAV28155-268 represent oligonucleotides which can be purified method of the invention. The specification describes a matrix
                               Disclosure; Page 76; 183pp; English
                                                                                            WPI; 1998-362922/31.
                                                                                                                 Chen
                                                                                                                                    (ISIS-)
                                                                                                                                                         19-DEC-1996;
                                                                                                                                                                              18-DEC-1997;
                                                                                                                                                                                                  25-JUN-1998
                                                                                                                                                                                                                       WO9827425-A1
                                                                                                                                                                                                                                         Synthetic
                                                                                                                                                                                                                                                                         Purification;
                                                                                                                                                                                                                                                                                                                08-OCT-1998
                                                                                                                                                                                                                                                                                                                                     AAV28169;
                                                                                                                                                                                                                                                                                                                                                                                                             σ
                                                                                                                                                                                                                                                                                                                                                                                                                                 1 tcctaccgcgtgcgac 16
                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                'n
                                                                                                                                                                                                                                                                                                                                                                                                           tcctaccgcgtgcgac 20
                                                                                                                                     ISIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                Cole DL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            certain cancer cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
Ц
С.
                                                                                                                                     PHARM INC
                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                        oligonucleotide; matrix; affinity unit;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93US-0124256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94WO-US10725
                                                                                                                                                           96US-0769951
                                                                                                                                                                              97WO-US23284
                                                                                                                 Srivatsa
                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94.1%;
                                                                                                                                                                                                                                                               antisense; bcl-2;
                                                                                                                                                                                                                                                                                                                                                          20
                                                                                                                                                                                                                                                                                                                                                          ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 16;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the treatment
                                                                from
                                                                        useful
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             the
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     DЪ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local s
Matches 16
                           sensor arrays, where each array comprises a unique probe oligonucleotide, which is the reverse complement of part of a unique carget oligonucleotide present in a mixture of target deletion sequence oligonucleotides. The compositions form a method for characterizing a sample of target deletion oligonucleotides which are labelled and hybridize with the probe oligonucleotides which are labelled and oligonucleotides and their targets are represented in AAX23548-X23709. Oligonucleotides characterized by the method form pharmaceutical compositions that are useful for modulating cellular adhesion or proliferation, and being active against a eukaryotic pathogen, a human retrovirus, including influenza wirns. Enstein-Barr virus Respiratory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   non-hyperproliferative disease, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic pathogen, retrovirus or other viruses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    comprises a support and an affinity unit that specifically and reversibly binds a target oligonucleotide, and comprises a sequence of bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative diseases, for treating a non-pathogen,
                                                                                                                                                                                                                                                                                                                                                                                     Chen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAX23681;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAX23681 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Deletion sequence oligonucleotide; sensor array; eukaryotic pathogen; probe; cellular adhesion modulator; cellular proliferation modulator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Deletion sequence oligonucleotide 134.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-JUN-1999
retrovirus, ....
                                                                                                                                                                                                                                                                                                                                                      WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9911820-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                  New compositions comprising sensor arrays made up of unique probe oligonucleotides - useful for characterizing a sample of target
                                                                                                                                                                                                                                                                                                                                                                                                                      (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       02-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11-MAR-1999
                                                                                                                                                                                                                      This invention describes a novel composition comprising a number of
                                                                                                                                                                                                                                                       Example 9; Page 147; 163pp; English
                                                                                                                                                                                                                                                                                    deletion oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      numan retrovirus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
nes 16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5 tectacegegtgegae 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 tectacegegtgegac 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                       Srivatsa GS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BP; 2 A; 10 C; 4 G; 4 T; 0 other;
                    including influenza virus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                       97US-0923771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98WO-US18084.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94.1%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       immunodeficiency virus; non-human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ΒP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 16;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
          Epstein-Barr virus, V). The compositions
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      n-Barr virus, Respiratory compositions enable
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or cytomegalovirus

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                                                                             deficiency virus (HIV), inflammation, in human or animal medicine; (ii) to investigate the role of a gene or gene product in non-human animals; and (iii) to modulate gene expression in cells, tissues or organs. The compositions provide bioavailability of at least 15, preferably 17-35,%. The penetration enhancer improves: (i) transport the nucleic acid across the mucosa of the alimentary canal and into cells; and (ii) increases stability of the nucleic acid. Oral administration avoids the complications and expense of intravenous or other methods of administration. AAX18669 to AAX18799 and AAX18801
                                                                                                                                                                                                                                                                                                                                                                                         nucleic acid and at least one penetration enhancer. The compositions used: (1) to treat or prevent any disease or disorder that can be treated with the nucleic acid, e.g. cancer, Alzheimer's disease, beta-thalassemia, malaria, viral infections (including human immune
                                                            other methods of administration. AAX18669 to A
represent antisense oligonucleotides which can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A pharmaceutical composition has been developed which comprises a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Composition comprising nucleic acid and penetration enhancer - use particularly for delivering therapeutic antisense oligonucleotides across the gastrointestinal mucosa, provides high bloavailability
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cellular adhesion protein; proliferation; antisense oligonucleot alimentary canal; transport; gastrointestinal mucosa; cancer; Alzheimer's disease; beta-thalassemia; malaria; viral infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 2; Page 83; 115pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-106077/09.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hardee G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-JUL-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-MAY-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        using oligodeoxynucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      characterization of deletion sequence oligonucleotides having related, but different nucleobase sequences, and quantification of different species of deletion sequence ("target") oligonucleotides in a mixture. Also, if the specificity of the oligonucleotide's nucleobase sequence for its reverse complement is not modified, the method may be performed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      inflammation; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tcctaccgcgtgcgac
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                               the method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97us-0886829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US13574.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein; proliferation; antisense oligonucleotide;
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Pred. No.
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Matches Query Match Best Local

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Score 16; Pred. No.

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Best Local :
                                         delivered via the compositions of the invention can be used to modulate expression of a cellular adhesion protein, modulate a rate of cellular proliferation, or have biological activity against eukaryotic pathogens or retroviruses. They can be used for treating conditions including e.g., ulcerative colitis, Crohn's disease, inflammatory bowel disease or undue cellular proliferation. The compositions can enhance the local and systemic uptake and delivery of nucleic acids via non-parenteral routes of administration (e.g., via the alimentary canal, skin, eyes,
                                                                                                                                              AAA49392-Z4993 represent antisense oligonucleotides designed to modulate the rate of cellular proliferation. The invention relates to new compositions for the non-parenteral delivery of oligonucleotides comprising at least one oligonucleotide in an emulsion. Oligonucleotides delivered via the compositions of the invention can be used to modulate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cellular proliferation; expression; modulation; antisense; non-parenteral; delivery; uptake; administration; emulsion; ulcerative colitis; Crohn's disease; inflammatory bowel disease;
                                                                                                                                                                                                                            Sequences AAZ49344-Z49354, AAZ49384-Z49385, AAZ49387-Z49388 and
                                                                                                                                                                                                                                                         Example 2; Page 122; 133pp; English
                                                                                                                                                                                                                                                                                                                      New oligonucleotide compositions used for the non-parenteral delivery
                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-072428/06
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 2 A; 10 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                 (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                              21-MAY-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       bcl-2 targetted antisense oligonucleotide
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                                                                                                                                                                                                                                                                                       .g. antisense oligos, ribozymes, peptide nucleic acids, molecular
ys, external guide sequences or aptamers -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tcctaccgcgtgcgac 20
                                                                                                                                                                                                                                                                                                                                                                                    Cook PD,
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                                                                                                                                                                                                                                                                                                                                                                                  Tillman L,
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                           (e.g., via or vagina).
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                  Hardee GE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                  Ecker DJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20;
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                                                                                                                                                                                                   Query Match
Best Local S
Matches 14
Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy;
                                                                                                                                                                                                                                                                              Antisense oligonucleotides were tested for their ability to induce programmed cell death (DNA fragmentation) in the human lymphoma cell line RS11846. The oligonucleotides are phosphodiasters targeted against the translation intitation site (AAQ8650-55) or the 5'-cap region (AAQ86656-58) of human bcl-2 pre-mRNAs. The AAQ86651 oligonucleotide provided pronounced DNA fragmentation.
                                                                                                                                                                                                                                                         Sequence 17 BP; 2 A; 8 C; 4 G; 3 T; 0 other;
                         Bcl-2 antisense oligonucleotide.
                                                   27~SEP-1995
                                                                                            AAQ86653 standard; DNA; 17 BP.
                                                                                                                                                                                                                                                                                                                                                                                     Anti-code oligomers which bind to bcl-2 mRNA - for the treatment of human solid tumours, esp. breast cancer
                                                                                                                                                                                                                                                                                                                                                               Example 12; Page 33; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1995-139394/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 W09508350-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bcl-2 antisense oligonucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAQ86651;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAQ86651 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (REED/) REED J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     lymphoma; programmed cell death; ss.
                                                                                                                     14
                                                                                                                                                                                                              Local Similarity
                                                                                                                                                      1 taccgcgtgcgacc 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5 tcctaccgcgtgcgac 20
                                                                                                                                                                   taccgcgtgcgacc 17
                                                                                                                                                                                                    Conservative
                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9308-0124256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94WO-US10725.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note= "3'-5' (antisense) sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /*tag=
                                                                                                                                                                                                              82.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17
                                                                                                                                                                                                              Score 14; DB 16; Pred. No. 2.4e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BP.
                                                                                                                                                                                                   0,
                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                  0;
                                                                                                                                                                                                                       Length 17;
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                                                                                                                                                                                                                                                                                                                                                              Query Match
                           (ISIS-) ISIS PHARM INC.
                                                                    18-DEC-1997;
                                                                                        25-JUN-1998
                                                                                                                                 Synthetic.
                                                                                                                                                    affinity purification; antisense; bcl-2; ss
                                                                                                                                                                                 Antisense oligonucleotide to bcl-2 mRNA.
                                                                                                                                                                                                       08-OCT-1998
                                                                                                                                                                                                                            AAV28175;
                                                                                                                                                                                                                                                                                                                                                                                                          programmed cell death (DNA fragmentation) in the human lymphoma cell line RS11846. The oligonucleotides are phosphodisters targeted against the translation initiation site (AAQ86650-55) or the 5'-cap region (AAQ86656-58) of human bcl-2 pre-mRNAs.
                                                19-DEC-1996;
                                                                                                             WO9827425-A1
                                                                                                                                                            Purification; oligonucleotide; matrix; affinity unit;
                                                                                                                                                                                                                                             AAV28175 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                         Sequence 17 BP; 1 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Antisense oligonucleotides were tested for their ability to induce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 12; Page 33; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of human solid tumours, esp. breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Anti-code oligomers which bind to bcl-2 mRNA - for the treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1995-139394/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Reed JC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (REED/) REED J C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       W09508350-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-MAR-1995.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                lymphoma; programmed cell death; ss.
                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                4 tcctaccgcgtgcg
                                                                                                                                                                                                                                                                                                          1 tcctaccgcgtgcg 14
                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                     (first entry)
                                                96US-0769951
                                                                   97WO-US23284.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93US-0124256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               94WO-US10725
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100.0%; Pi
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Pred. No. 2.4e+02;
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Chen D,

Cole DL,

Srivatsa GS;

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Search completed: June 28, 2002, 22:40:13 Job time: 8089 sec
                                                                                                      Дb
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                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                          AAV28155-268 represent oligonucleotides which can be purified using the method of the invention. The specification describes a matrix that comprises a support and an affinity unit that specifically and reversibly binds a target oligonucleotide, and comprises a sequence of bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative diseases, for treating a non-pathogen, non-hyperproliferative disease, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic pathogen, retrovirus or other viruses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matrix for selective separation of oligo:nucleotide - useful for, e.g. large scale purification of anti-sense agents from their deletion derivatives formed during synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1998-362922/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 81; 183pp; English.
                                                                                                                                                                                                                                                                                     Sequence 17 BP; 1 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                      4
                                                                                                                          1 tectacegegtgeg 14
                                                                                                tectacegegtgeg 17
                                                                                                                                                                                     14; Conservative
                                                                                                                                                                                     82.4%; Score 14; DB 19; Length 17; 100.0%; pred. No. 2.4e+02; tive 0; Mismatches 0; Indels
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Database :
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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Perfect score:
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                                                                                                                                                                                                                                                                            No
                                                                                                                                                                                                                                                                                                                           and is derived
                                                                                                                                                                                                                                                                           Score
    seq length: 0 seq length: 75
                                                                                                                                                                                                                                                                                                                      No. is the number of results predicted by chance to have a greater than or equal to the score of the result being printed, derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                              Issued_Patents_NA:*
1: /cgn2_6/ptodata/1,
2: /cgn2_6/ptodata/1,
3: /cgn2_6/ptodata/1,
4: /cgn2_6/ptodata/1,
5: /cgn2_6/ptodata/1,
6: /cgn2_6/ptodata/1,
    Query
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Gapop 10.0 , Gapext 1.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tcctaccgcgtgcgacc 17
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/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/Backfiles1.seq:*
/cgn2_6/ptodata/1/ina/backfiles1.seq:*
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    3322222222256600011111777
35888866666000
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        US-08-465-485A-10
US-08-465-485A-10
US-08-465-485A-11
US-09-080-285-1
US-09-080-285-1
US-09-080-285-1
US-09-080-285-1
US-09-080-285-1
US-09-080-74-60
US-08-458-811-3
US-08-960-774-60
US-08-458-811-3
US-08-97-527-3
US-08-99-75-27-4
US-09-072-508-3
US-08-08-99-527-2
US-08-08-99-527-2
US-08-08-99-527-2
US-08-049-264C-56
US-08-479-723A-56
PCT-US94-04310-11
US-08-049-264C-40
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Sequence 10, Appl
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Sequence 11, Appl
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        85, Appli
2, Appli
56, Appli
56, Appl
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56, Appl
11, Appl
11, Appl
11, Appl
11, Appl
11, Appl
11, Appl
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11, Appl
22, Appl
60, Appli
3, Appli
3, Appli
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4, Appli
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45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28
11.8	11.8			11.8				11.8			11.8						
69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4
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PCT-US94-04310-9	US-08-479-723A-9	US-08-476-562-9	US-08-049-264C-9	PCT-US94-04310-43	PCT-US94-04310-42	US-08-479-723A-43	US-08-479-723A-42	US-08-476-562-43	US-08-476-562-42	US-08-049-264C-43	US-08-049-264C-42	PCT-US94-04310-41	PCT-US94-04310-40	US-08-479-723A-41	US-08-479-723A-40	US-08-476-562-41	US-08-476-562-40
9	9	Sequence 9, Appli	Sequence 9, Appli	•	Sequence 42, Appl	-	-	Sequence 43, Appl	-	-	Sequence 42, Appl	-		Ī	•	Sequence 41, Appl	Sequence 40, Appl

## ALIGNMENTS

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US-08-465-485A-10
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Patent No. 5831066
GENERAL INFORMATION:
                                                                                                                                      TELEPHONE: (408) 436-20
TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO:
         MOLECULE TYPE: DN
                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
                                                                                                                                                                                                                                                FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
NAME: Fortney, Andrew D.
                                                                                                                                                                                                                                                                                                 FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
                                                                                                                                                                                                                                                                                                                                                FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0'
                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 05-JUN-1995
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/124,256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Rel
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: Arlington
STATE: Virginia
COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET:
                                                                  STRANDEDNESS:
                                                                                                                                                                                                                               REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 22202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, ADDRESSEE: P.C.
                                                                                 nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Application US/08465485A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1755 S. Jefferson Davis Hwy., Suite 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Reed, John
                                                 linear
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                                                                                                                                                                            (408) 436-2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                              UMBER: US/08/465,485A
05-JUN-1995
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                              DNA (genomic)
                                                                single
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US-09-080-285-10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 10,
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                                                       Matches
                                                                      Query Match
Best Local :
                                                                                                                                                                                                                 TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
FILING DATE: 05-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 20-SEP-1993 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 0 FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 0 FILING DATE: 21-FEB-1992 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
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                                                                                                                                                         MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC OPERATING SYSTEM:
                                                       Local Similarity
nes 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Arlington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET:
                                                                                                                                                                          TOPOLOGY:
                                                                                                                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                         TELEPHONE:
                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
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             1 tcctaccgcgtgcgacc 17
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TCCTACCGCGTGCGACC 17
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                                                                                                                                                                                                  nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Virginia
Y: U.S.A.
                                                                                                                                                                                                                                                                                                                                 Fortney, Andrew D.
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1755 S. Jefferson Davis Hwy., Suite 400
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                                                       Conservative
                                                                                                                                                                          linear
                                                                                                                                             YES
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                                                                                                                                                                                                                                                                           (408) 436-2070
                                                                                                                                                         DNA (genomic)
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                                                                     Score 17;
Pred. No. :
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US-08-465-485A-9
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                                                                                                                                                RESULT
                                                                                            ; Sequence 11, Application US/08465485A; Patent No. 5831066
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GENERAL INFORMATION:
APPLICANT: Reed, John
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                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
                                              APPLICANT: Reed, John TITLE OF INVENTION: R
                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
TYPE: nucleic acid
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APPLICATION NUMBER: US 0:
FILING DATE: 21-FEB-1992
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                 CORRESPONDENCE ADDRESS:
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                                NUMBER OF SEQUENCES:
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OPERATING SYSTEM: PC-DOS/MS-DOS
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1755 S. Jefferson Davis Hwy., Suite 400
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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT
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                                Regulation of bcl-2 Gene Expression 29
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100.0%; Pred. No.
tive 0; Mismatc
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ADDRESSEE:

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US-09-080-285-9
; Sequence 9, Application US/09080285
; Patent No. 6040181
; GENERAL INFORMATION:
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Best Local Similarity
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IMP PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                             APPLICANT: Reed, John
TITLE OF INVENTION: Regulation of bc1-2 Gene Expression
NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
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CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/124,256
APPLICATION NUMBER: 20-SEP-1993
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LENGTH: 17 base pairs
TYPE: nucleic acid
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ANTI-SENSE: Y
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REFERENCE/DOCKET NUMBER: 3335-070-55 CONTINUED INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION: (408) 436-2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
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                                                                                                                                          CITY: Arlington
STATE: Virginia
                                                                                                                           COUNTRY:
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1755 S. Jefferson Davis Hwy., Suite 400
                                                                                                                           U.S.A.
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1755 S. Jefferson Davis Hwy., Suite 400
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SYSTEM: PC-DOS/MS-DOS
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US-09-080-285-11
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
     PRIOK AFFIANTION NUMBER: US 08/400,400
FILLING DATE: 05-JUN-1995
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 08/124,256
                                                      CLASSIFICATION:
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 08/465,485
                                                                                                                                                                                                    ZIP: 22202
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy (
COMPUTER: IBM PC comp
                                                                                                                                    SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/080,285
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Fortney, Andrew D.
REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
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                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                        FILING DATE:
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ZIP: 22202
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1755 S. Jefferson Davis Hwy., Suite 400
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20-SEP-1993
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100.0%; Pred. No. 44;
tive 0; Mismatches
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RESULT 8
US-09-286-098-60
Sequence 60, Application US/09286098
Patent No. 6218371
GENERAL INFORMATION:
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US-09-030-701-28
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INFORMATION FOR SEQ ID NO: 11
SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: F
SEQ ID NO 28
LENGTH: 18
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Best Local Similarity
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Best Local Similarity
                                                                                                                                                                                          Matches
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APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/288,692
FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Krieg, Arthur M.
APPLICANT: Schwartz, David A.
APPLICANT: Schwartz, David A.
TITLE OF INVENTION: USE OF NUCLEIC ACIDS CONTAINING
TITLE OF INVENTION: UNMETHYLATED CPG DINUCLEOTIDE IN THE TREATMENT OF
TITLE OF INVENTION: LPS-ASSOCIATED DISORDERS
FILE REFERENCE: C1039/7011
                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 60/
PRIOR FILING DATE: 1997-02-28
NUMBER OF SEQ ID NOS: 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/030,701B
                                                                                                                                                                                                                                                                                            OTHER INFORMATION: synthetic oligonucleotide
                                                                                                                                                                                                                                                                                                                            ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 3335-070-55 CONT
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 TCCTACCGCGTGCG 17
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                                                                                                                    1 taccgcgtgcgacc 14
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100.0%; Pr
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100.0%;
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                                                                                                                                                                                                         Score 14; DB 4;
Pred. No. 44;
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; TYPE: DNA
ORCANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Synthetic Sequence
US-09-286-098-60
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MOLECULE TYPE: US-08-960-774-60
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Best Local Similarity
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CURRENT FILING DATE: 1999-04-02
EARLIER APPLICATION NUMBER: US 60/080,729
EARLIER FILING DATE: 1998-04-03
NUMBER OF SEQ ID NOS: 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Krieg, Arthur M.
APPLICANT: Weiner, George
TITLE OF INVENTION: Methods and Products for Stimulating the
TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
TITLE OF INVENTION: Cytokines
FILE REFERENCE: C1039/7026/HCL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                TELEPHONE: 619/678-507
TELEFAX: 619/678-5099
INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: U.S. Serial No. 6239116 08/738,652
FILING DATE: October 30, 1996
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Haile, Lisa A.
REGISTRATION NUMBER: 08918/012001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 619/678-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS
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                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                            SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM: PC
SOFTWARE: ASCII text
                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/96 FILING DATE: 30-October-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Fish & Richardson P.C. STREET: 4225 Executive Square, Suite 1400
                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 92037
                                                    STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 taccgcgtgcgacc 17
                                      TOPOLOGY:
                                                                                            LENGTH: 18 base pairs
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                                                                          nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IBM PC compatible SYSTEM: PC-DOS/MS-DOS
                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    82.4%; Score 14; DB 4; 100.0%; Pred. No. 44;
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US-08-458-814-3
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                                                                                                                       INFORMATION FOR SEQ ID NO: :
SEQUENCE CHARACTERISTICS:
LENGTH: 30 base pairs
TYPE: nucleic acid
STRANDEDNESS: unknown
TOPOLOGY: unknown
MOLECULE TYPE: other nucle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                  Matches
                                              Best Local Similarity
                                                           Query Match
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                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: 60
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202 672 5300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 18-OCT-1
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 02-JUN-PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 25-OCT-PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: AU PH0566
FILING DATE: 15-MAY-1985
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION:
                                                                                                                                                                                                                         TELEFAX: 204136
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: 3000 K St
                                                                                                                                                                                                                                                                                                           NAME: BENT, Stephen A REGISTRATION NUMBER: 29,768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/458,814 FILING DATE: 02-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE:
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1 tectacegegtgegace 17
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RAND, Keith N
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                                                                                                                    unknown
E: other nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Foley & Lardner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER: US 08/327,822
18-OCT-1994
                                                                                                                                                                                                                                                                                                                                                                                                    UMBER: AU PH3104
25-OCT-1985
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                                              71.8%;
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                                  0;
                                              Score 12.2; DB : Pred. No. 4e+02;
                                                                                                                                                                                                                                                                                                 60042/155/BIAU
                                  Mismatches
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                                                             DB 3; Length 30;
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RESULT 11
US-08-897-527-3/c
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                                                                                                                                                                                                                                                    US-08-897-527-4/c
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                                                                                                                                                                                                              Sequence 4, Application US/08897527 Patent No. 6013770
                                                                                                                                                                                                                                                                                                                                                                                              Matches
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Best Local Similarity
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                                                                                                                                                                                                GENERAL INFORMATION:
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TELEPHONE: (312) 474-6300
TELEPAX: (312) 474-0448
INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
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APPLICANT:
                                                                                                      APPLICANT: Reeves, Jerry J.
APPLICANT: Bertrand, Kevin P.
APPLICANT: Zhang, Yuzhi
TITLE OF INVENTION: CHIMERIC CONTRACEPTIVE VACCINES
NUMBER OF SEQUENCES: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: 1: MOLECULE TYPE:
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ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
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                                                                                         CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
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                                                                                                                                                                                                                                                                                                                         36 TCCTACGGCCTGCGGCC 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                   CITY: Chicago
                                                      STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LECULE TYPE: other nucleic acid
DESCRIPTION: /desc = "Oligonucleotide LHRH-4"
COUNTRY: United States of America
                                                                      ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                         1 tcctaccgcgtgcgacc 17
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                                                                                                                                                                                                                                                                                                                                                                                            14; Conservative
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                    Illinois
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                                                    E: Marshall, O'Toole, Gerstein, Murray & Borun
233 South Wacker Drive/6300 Sears Tower
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IBM PC compatible
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Pred. No. 4e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 60;
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US-09-072-508-3/c
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ANTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,107
REFERENCE/DOCKET NUMBER: 2898
TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-6300
TELEFAX: (312) 474-6448
INFORMATION FOR SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 3, Application US/09072508 Patent No. 6045799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: Reeves, Jerry J.
APPLICANT: Bertrand, Kevin P.
APPLICANT: Zhang, Yuzhi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
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TELEPONMUNICATION INFORMATION:
TELEPHONE: (312) 474-6300
TELEPAX: (312) 474-0448
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                          ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,1
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
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DESCRIPTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/897,527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                       CLASSIFICATION:
                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                SOFTWARE:
                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                           STREET: 233 SC
CITY: Chicago
                                                                                                                                                                                                                                                                                                 MEDIUM TYPE:
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                                                                                                                                                                                                      APPLICATION NUMBER: US/09/072,508
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OPERATING SYSTEM: PC-DOS/MS-DOS
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United States of America
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233 South Wacker Drive/6300 Sears Tower
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                                                                                                                                                                                                                                             PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                 Floppy disk
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/desc = "Oligonucleotide LHRH-5"
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82.4%;
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                                                                                                           36,107
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US-09-072-508-4/c
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; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: other nucleic acid
; DESCRIPTION: /desc = "Oligonucleotide LHRH-4"
US-09-072-508-3
                                                                Matches
                                                                                           Query Match
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                                                                                Best
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                TELEFAX: (312) 474-0448
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Clough, David W.
REGISTRATION NUMBER: 36,10
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                        TOPOLOGY: 1
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                           TELEPHONE: (312) 474-6300
                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
   36
                                                                                                                                                                                                                     TYPE:
                                                                            Local Similarity
                                                                                                                                                                                                   STRANDEDNESS: single
                                1 tectacegegtgegace 17
                                                                                                                                                         DESCRIPTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
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TCCTACGGCCTGCGGCC
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                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bertrand, Kevin P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          United States of America
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                                                                                                                                                                                   linear
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                                                                                                                                                      other nucleic acid
/desc = "Oligonucleotide LHRH-5"
                                                                            71.8%;
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                                                                           Score 12.2; DB 3; Pred. No. 4e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 12.2; DB 3; Length 60; Pred. No. 4e+02;
                                                            Mismatches
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                                                                                         Length 60;
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                                                           Gaps
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; Sequence 85, Application US/08185949B

US-08-185-949B-85 RESULT 15

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GENERAL INFORMATION:
APPLICANT: MARK D. Goochran
APPLICANT: MARK D. Macdonald
TITLE OF INVENTION: Recombinant Infectious Bovine
TITLE OF INVENTION: Recombinant Infectious Bovine
TITLE OF INVENTION: Recombinant Infectious
TITLE OF INVENTION: Recombinant Infectious
TITLE OF INVENTION: Recombinant Infectious
INVERSOR OF SEQUENCES: 104
INVERSOR: ADDRESSE:
ADDRESSE: . John P. White
STREET: 1185 Avenue of the Americas
CITY: New York
CONSTRUCT NOWARD
TOWN TYPE: Ploppy disk
COMPUTER: LBM 330 466 DXX
OPERATING STSTEM: PC-POS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
COURRENT APPLICATION NUMBER: US/08/185,949B
COURTER: 1185 AVENTION TOWARD: A35
COURRENT APPLICATION NUMBER: US/08/185,949B
FILLING DATE: 03-NOV-1994
FILLING DATE: 03-NOV-1994
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Maximum Match 100%
Listing first 45 s
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Sequence:
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                                            Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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DB
Score
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Query
Match Length
                                                                                 June 28, 2002, 22:11:07 ; Search time 3762.88 Seconds (without alignments) 94.542 Million cell updates/sec
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Gapop 10.0 , Gapext 1.0
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17
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Copyright (c) 1993 - 2000
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Sequence 11 from patent US 5831066.
AR052613
AR052613.1 GI:5975977
                                                                                     Regulation of bcl-2 gene expression Patent: US 5831066-A 11 03-NOV-1998; Location/Qualifiers
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Reed, J.C.
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Patent: WO 0151646-A 36 19-JUL-2001;
Novozymes Biotech, Inc. (US)
                                                                                                                                                                                                                                                                                                                                                                           Aspergillus oryzae.
Aspergillus oryzae.
Aspergillus oryzae
Eukaryota; Fungi; Ascomycota; Pezizomycotina; Eurotiomycetes;
Eukaryota; Trichocomaceae; mitosporic Trichocomaceae; Asperg:
1 (bases 1 to 68)
Yaver, D.S. and Bellini, D.A.
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Sequence 36 from Patent WO0151646.
AX195437
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1 (bases 1 to 52)
Beldjord,K., Beldjord,C., Macintyre,E., Even,P. and Sigaux,F. Peripheral selection of V delta 1+ cells with restricted T cell receptor delta gene junctional repertoire in the peripheral blood of healthy donors
J. Exp. Med. 178 (1), 121-127 (1993)
AR121243
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Location/Qualifiers
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/db_xref="taxon:5062"
13 c 24 g 15 t
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/db_xref="taxon:9606"
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                                Homo sapiens mRNA for T-cell receptor delta chain, CDR3 region
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                          clone D28.
                                                      HSA132122
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Nucleic acids containing single nucleotide polymorphisms and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2606 from Patent W00140521. AX159278
                                                                                                                                                                                                                                                                                                                                                                                                            Curagen
                                                                                                                                                                                                                                                                                                                                                                                                                           Patent:
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                                                                                                                                                                                                                                                           /note="2 of 2 allelic variants (2605 is other entry)" 21\ c 12\ g 11\ t
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Pred. No. 1.1e+05;
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Pred. No. 1.1e+05;
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PC C07K14/
G01N33/53//
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                                                                                            SHINICHI MOGI,
                                                                                                                                                                                                                                                                            Ito,Y., Nishi,K., Ogi,K., Okubo,S., Mogi,S., Noguchi,Y., Yoshimura,K. and Tanaka,H.
                                                                                                                                                                                                                                                                                                                                                                 synthetic construct. synthetic construct
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Joly,P., Gilbert,D., Bonneville,M. and Tron,F.
Expansion of circulating V gamma 9/V delta I T cells in a patient
with a syndrome of recurrent fever: evidence for an unusual
antigen driven process leading to selection of recurrent motifs
within TCR junctional loops of diverse lengths
Eur. J. Immunol. 29 (10), 3338-3349 (1999)
20010072
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Direct Submission
Submitted (07-JAN-1999) Jouen-Beades F., Immunologie, INSERM U519,
Submitted de Medecine, 22 boulevard Gambetta, 76183 Rouen cedex,
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel polypeptide and DNA
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1 (bases 1 to 24)
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1 (bases 1 to 51)
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                                             YUKO NOGUCHI,KOJI YOSHIMURA,HIDEYUKI TANAKA
C12N15/09,A61K38/00,A61K45/00,A61K48/00,A61P9/00,A61P19/02, PC
                                                                                                      YASUAKI ITO, KAZUNORI NISHI, KAZUHIRO OGI, SHOICHI OKUBO,
          C07K14/47, C07K16/18, C12N1/21, C12N5/10, G01N33/15, G01N33/50, PC
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/product="T-cell receptor delta chain, CDR3 region"
/protein_id="CAN10585.1"
/db_xref="GI:4151018"
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Local Similarity 100.0%;
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Artificial Apis mellifera mellifera microsatellite PCR primer
                                                                                                                                                                                                                                                                                                                                                                                                              Direct Submission
Submitted (05-MAY-1998) Solignac M., Laboratoire PGE, CNRS, Avenue
de la Terrasse, 91198 Gif-sur-Yvette cedex, FRANCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        artificial sequence.
1 (bases 1 to 18)
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                            Sequence 1 from patent US AR097986
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sociobiological consequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Relatedness among honey bees of a drone congregation and its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Baudry,E., Solignac,M., Garnery,L., Gries,M., Cornuet,J.M. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Koeniger, N
              AR097986.1 GI:12807243
                                                       AR097986
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/organism='Artificial Sequence'
Location/Qualifiers
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                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                   /note="PCR primer used to amplify Apis mellifera ssp. mellifera microsatellite locus Ap19"
/PCR_conditions="annealing temperature: 56 degC, MgCl2 concentration: 1.2 mW, length fragment 136 bp."
a 3 c 7 g 2 t
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                                  fungus-resistant plants transformed with the DNA molecule method for creating the plants Patent: US 6225531-A 19 01-MAY-2001;
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Patent: US 6225531-A 26 01-MAY-2001;
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Kakitani,M., Umemoto,N., Ishida,I., Iwamatsu,A., Yoshikawa,M. and Yamaoka,N.
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Sequence 26 from patent US 6225531.
AR148927
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Patent: US 6225531-A 21 01-MAY-2001;
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Sequence 21 from patent US
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Search completed: June 28, 2002, 22:11:09 Job time: 8360 sec

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                    AAX18696
AAQ86643
AAV28169
AAX23681
AAX18690
                                                                                                                     AAQ86653
AAV28175
AAX23687
      AAZ49348
                                                                                                                                                                                                                                                             SUMMARIES
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                                                                                                                                                                                               Description
Deletion sequence
Target bcl-2 antis
bcl-2 targetted an
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Deletion sequence
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AAV28176  AAX23688  AAX236894  AAX18694  AAX18695  AAX18697  AAX18697  AAX186993  AAV62494  AAV62494  AAV62494  AAV76292  AAV64925  AAV76292  AAV64925  AAV762967  AAT793997  AAT799997  AAT79651  AAT799997  AAT799997  AAT799999  AAT10844  AAX251662  AAV90786  AAV90786  AAV90786	AAQ86652 AAQ86654 AAV28173 AAV28174
	Bcl-2 antisense ol Bcl-2 antisense ol Antisense oligonuc Antisense oligonuc

## ALIGNMENTS

RESULT AAQ86653

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Reed JC;	(REED/) REED J C.		20-SEP-1993; 9		20-SEP-1994; 9		30-MAR-1995.		WO9508350-A.				misc_feature	Key		Synthetic.		lymphoma; progra	Anticode oligome		Bcl-2 antisense		27-SEP-1995 (fi		AAQ86653;		AAQ86653 standard; DNA; 17 BP.
	;-		93US-0124256.		94WO-US10725.						/note= "3'-5' (antisense) sequence"	/*tag= a	117	Location/Qualifiers				lymphoma; programmed cell death; ss.	Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy;	•	Bcl-2 antisense oligonucleotide.	•	(first entry)				rd; DNA; 17 BP.

WPI; 1995-139394/18

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SXX CCC CCC XXX PT XXX
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                                                                                                                                                                                                                                                                                                                       Chen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               programmed cell death (DNA fragmentation) in the human lymphoma cell line RS11846. The oligonuclectides are phosphodiesters targeted against the translation initiation site (AAQ86650-55) or the 5'-cap region (AAQ86656-58) of human bcl-2 pre-mRNAs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Anti-code oligomers which bind to bcl-2 mRNA - for the treatment of human solid tumours, esp. breast cancer {\sf var}
                                    bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative diseases, for treating a non-pathogen, non-hyperproliferative disease, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic
                                                                                                                                                                                                                               Matrix for selective separation of oligo:nucleotide - useful for e.g. large scale purification of anti-sense agents from their deletion derivatives formed during synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Purification; oligonucleotide; matrix; affinity unit; affinity purification; antisense; bcl-2; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Antisense oligonucleotides were tested for their ability to induce
                                                                                                                               comprises a support and an affinity unit that specifically and reversibly binds a target oligonucleotide, and comprises a seq
                                                                                                                                                            AAV28155-268 represent oligonucleotides which can be purified using method of the invention. The specification describes a matrix that
                                                                                                                                                                                                       Disclosure; Page 81; 183pp; English.
                                                                                                                                                                                                                                                                                           WPI; 1998-362922/31.
                                                                                                                                                                                                                                                                                                                                                    (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                 19-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                              18-DEC-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Antisense oligonucleotide to bcl-2 mRNA.
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                             o
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                             other viruses
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Sequence 17

BP; 1 A; 8 C; 4 G; 4 T; 0 other;

Query Match

100.0%;

Score 17;

DВ

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Length 17;

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AAX23687
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                                                cc sensor arrays, where each array comprises a unique probe conjugonucleotide, which is the reverse complement of part of a unique coligonucleotides. The compositions form a method for characterizing a coligonucleotides. The compositions form a method for characterizing a conjugonucleotides. The compositions form a method for characterizing a coligonucleotides of the sensor arrays. Such coligonucleotides and their targets are represented in AAX23548 x23709. Coligonucleotides and their targets are represented in AAX23548 x23709. Coligonucleotides characterized by the method form pharmaceutical compositions that are useful for modulating cellular adhesion or compositions that are useful for modulating cellular adhesion or retrovirus, and being active against a eukaryotic pathogen, a human cretrovirus, including influenza virus, Epstein-Barr virus, Respiratory compositions that are useful for modulating cellular adhesion or retrovirus, including influenza virus, Epstein-Barr virus, Respiratory compositions virus or cytomegalovirus (CMY). The compositions enable characterization of deletion sequence oligonucleotides having related, but different nucleobase sequence, and quantification of different compositions in mixture. The properties of deletion sequence, and quantification amixture. The properties of the oligonucleotides in a mixture. The properties of the oligonucleotides in coleobase sequence conjugated the method may be performed controlled the method may be performed.
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Deletion sequence oligonucleotide 140.
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Sequence
                                                                                                                                                                                                                                                                                                                                                                                      This invention describes a novel composition comprising a number of
                                                                                                                                                                                                                                                                                                                                                                                                                           Example 9; Page 150; 163pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                               deletion oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New compositions comprising sensor arrays made up of unique probe
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                                    oligodeoxynucleotides.
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                                                                                                                                Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                       deficiency virus (HIV)), inflammation, in human or animal medicine; (ii) to investigate the role of a gene or gene product in non-human animals; and (ii) to modulate gene expression in cells, tissues or organs. The compositions provide bioavailability of at least 15, preferably 17-35,%. The penetration enhancer improves: (i) transport the nucleic acid across the mucosa of the alimentary canal and into cells; and (ii) increases stability of the nucleic acid. Oral administration avoids the complications and expense of intravenous or other methods of administration. AAXIB669 to AAXIB799 and AAXIB801 represent antisense oligonucleotides which can be used as the nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nucleic acid and at least one penetration enhancer. The compositions used: (i) to treat or prevent any disease or disorder that can be treated with the nucleic acid, e.g. cancer, Alzheimer's disease, beta-thalassemia, malaria, viral infections (including human immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Composition comprising nucleic acid and penetration enhancer - use particularly for delivering therapeutic antisense oligonucleotides across the gastrointestinal mucosa, provides high bioavailability
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cellular adhesion protein; proliferation; antisense oligonucleotide; alimentary canal; transport; gastrointestinal mucosa; cancer; Alzheimer's disease; beta-thalassemia; malaria; viral infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HIV; inflammation; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Target bcl-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A pharmaceutical composition has been developed which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1999-106077/09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hardee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-JAN-1999.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-MAY-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4
                      ccttcctaccgcgtgcg 17
ccttcctaccgcgtgcg 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                e,
                                                                                                                                      Similarity
                                                                                                                                                                                                                                                17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Teng C;
                                                                                                                                                                                                                                             B₽;
                                                                                                                                                                                                                                                                                                      method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antisense oligonucleotide #28.
                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97US-0886829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98WO-US13574.
                                                                                                                                                                                                                                             1 A;
                                                                                                                                                                                                                                             8 C;
                                                                                                                                      100.0%;
                                                                                                                                                                                                                                             4 G;
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                                                                                                            0;
                                                                                                                                      Score 17;
Pred. No.
                                                                                                                                                                                                                                             4 T;
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                                                                                                            Mismatches
                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                other;
                                                                                                                                      5.4;
                                                                                                                                                             DB
                                                                                                                                                                20;
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                                                                                                            0;
                                                                                                                                                             Length 17;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The compositions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    comprises a
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RESULT
AAQ86643
AAV28169
XX
AC
AAV2
AC
AAV2
XX
AC
AAV2
XX
AC
BT
OB-C
XX
DE
Anti
XX
Puri
XX
AC
XX
Puri
XX
SX
Syntx
                                                                                                                                                                                                                                                     B
                                                                                                                                                                              QΥ
                                                                                                                               RESULT
                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                         Reed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Antisense oligomer TI-AS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAQ86643 standard; DNA; 20
                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                 The antisense oligonucleotide TI-AS straddles the translation-
initiation site in the mRNA coding strand of the human bcl-2
gene and is complementary to this region. It reduces the
expression of bcl-2 gene product thereby inducing programmed c
                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1995-139394/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           W09508350-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Anticode
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAQ86643;
                  Purification; oligonucleotide; matrix; affinity unit; affinity purification; antisense; bcl-2; ss.
                                                                                                                                                                                                                                                                                                                                                                 Anti-code oligomers which bind to bcl-2 mRNA -
                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-MAR-1995
                                                                                                           AAV28169 standard;
                                                                                                                                                                                                                                                                         death of certain cancer cells.
                                                                                                                                                                                                                                                                                                                                                                                                                           (REED/) REED
                                                                     08-OCT-1998
                                                                                         AAV28169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              leukemia;
                                                                                                                                                               Ν
                                                                                                                                                                                سر
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                                                                                                                               6
                                                                                                                                                                       ccttcctaccgcgtgcg 17
                                                                                                                                                           ccttcctaccgcgtgcg 18
                                                                                                                                                                                                                                                     20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        oligomer; antisense oligonucleotide; bcl-2; cancer; therapy;
                                                                                                                                                                                                                                                                                                                                                       solid tumours, esp. breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              lymphoma; solid tumor; breast cancer; autoimmune disease;
                                                oligonucleotide to bcl-2 mRNA
                                                                                                                                                                                                                                                                                                                                   Page 13; 108pp;
                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                     BP; 2 A; 10 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                             .
ДС.
                                                                     (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag=
                                                                                                            DNA;
                                                                                                                                                                                                          100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
"3'-5' (antisense) sequence"
                                                                                                            20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BP
                                                                                                             ΒP
                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                    English.
                                                                                                                                                                                                              Score 17; DB Pred. No. 5.4;
                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                       DB 16;
                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                  for the
                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                  programmed cell
                                                                                                                                                                                                                                                                                                                                                                    treatment
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RESULT
AAX23681
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    method of the invention. The specification describes a matrix that comprises a support and an affinity unit that specifically and reversibly binds a target oligonucleotide, and comprises a sequence of bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative disease, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic pathogen, retrovirus or other viruses.
Chen D,
                                                                                                                                                                                          Deletion sequence oligonucleotide; sensor array; eukaryotic pathogen; probe; cellular adhesion modulator; cellular proliferation modulator; human retrovirus; human immunodeficiency virus; non-human retrovirus;
                                                    02-SEP-1997;
                                                                                                      11-MAR-1999.
                                                                                                                               WO9911820-A1
                                                                                                                                                         Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matrix for selective separation of oligo:nucleotide - useful for, e.g. large scale purification of anti-sense agents from their deletion derivatives formed during synthesis
                          (ISIS-) ISIS PHARM INC
                                                                            01-SEP-1998;
                                                                                                                                                                                                                                                Deletion sequence oligonucleotide 134.
                                                                                                                                                                                                                                                                            18-JUN-1999
                                                                                                                                                                                                                                                                                                                             AAX23681 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     {\tt AAV28155\text{-}268} represent oligonucleotides which can be purified using the method of the invention. The specification describes a matrix that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 76; 183pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                           1 ccttcctaccgcgtgcg 17
                                                                                                                                                                                                                                                                                                                                                                                               N
                                                                                                                                                                                   primer;
                                                                                                                                                                                                                                                                                                                                                                                             ccttcctaccgcgtgcg 18
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Srivatsa GS
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                                                                                                                                                                                                                                                                          (first entry)
                                                    97US-0923771
                                                                            98WO-US18084
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                              20
                                                                                                                                                                                                                                                                                                                              ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 17;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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compositions that are useful for modulating cellular adhesion or proliferation, and being active against a eukaryotic pathogen, a human retrovirus, a human immunodeficiency virus (HYV), or a non-human retrovirus, including influenza virus, Epstein-Barr virus, Respiratory Syncytial Virus or cytomegalovirus (CMV). The compositions enable characterization of deletion sequence oligonucleotides having related, but different nucleobase sequences, and quantification of different species of deletion sequence ("target") oligonucleotides in a mixture. Also, if the specificity of the oligonucleotide's nucleobase sequence Also, if the specificity of the oligonucleotide's nucleobase sequence ("target") oligonucleotides in a mixture.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sensor arrays, where each array comprises a unique probe oligonuclectide, which is the reverse complement of part of a unique target oligonuclectide present in a mixture of target deletion sequence oligonucleotides. The compositions form a method for characterizing a sample of target deletion oligonucleotides which are labelled and hybridize with the probe oligonucleotides of the sensor arrays. Such oligonucleotides and their targets are represented in AAX23548·X23709. Oligonucleotides characterized by the method form pharmaceutical
Sequence 20 BP; 2 A; 10 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This invention describes a novel composition comprising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 9; Page 147; 163pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                oligonucleotides - useful deletion oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New compositions comprising sensor arrays made up of unique probe oligonucleotides - useful for characterizing a sample of target
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI;
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                                                                                                       oligodeoxynucleotides.
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            Ωy
                             Best
                        Matches
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l Similarity
17; Conserv
                        Conservative
                             100.0%;
                        0;
                             Score 17;
Pred. No.
                        Mismatches
                             5
                                   DB 20;
                        0;
                                   Length 20;
                        Indels
                       0;
                       Gaps
                       0;
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AAX18690
                                                                                                  RESULT
                                                                       Target bcl-2 antisense oligonucleotide #22.
                                                                                     AAX18690;
                                                                              10-MAY-1999
                                                                                           AAX18690 standard; DNA;
                                                                                                  8
                                                                              (first entry)
                                                                                           20
                                                                                           ВP
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01-JUL-1997; 01-JUL-1998; 14-JAN-1999. Synthetic. alimentary canal; transport; gastrointestinal mucosa; cancer; Alzheimer's disease; beta-thalassemia; malaria; viral infection; Cellular adhesion protein; proliferation; antisense oligonucleotide; (ISIS-) ISIS PHARM INC WO9901579-A1. inflammation; 97US-0886829 98WO-US13574 ss.

WPI; 1999-106077/09

Hardee G,

Teng C;

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Best Local (
                                                                                            New oligonucleotide compositions used for the non-parenteral delivery of e.g. antisense oligos, ribozymes, peptide nucleic acids, molecular
               Example 2; Page 122; 133pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  deficiency virus (HIV)), inflammation, in human or animal medicine; ((ii) to investigate the role of a gene or gene product in non-human animals; and (iii) to modulate gene expression in cells, tissues or organs. The compositions provide bioavailability of at least 15, preferably 17-35,%. The penetration enhancer improves: (i) transport of the nucleic acid across the mucosa of the alimentary canal and into cells; and (ii) increases stability of the nucleic acid. Oral administration avoids the complications and expense of intravenous or other methods of administration. AAXI8669 to AAXI8999 and AAXI8891
                                                                                                                                                                                                  WPI; 2000-072428/06
                                                                                                                                                                                                                                                                                                                 (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                            21-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                       20-MAY-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cellular proliferation; expression; modulation; antisense;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      bcl-2 targetted antisense oligonucleotide SEQ ID 13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             non-parenteral; delivery; upulcerative colitis; Crohn's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            non-parenteral;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAZ49348 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 20 BP; 2 A; 10 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     used: (i) to treat or prevent any disease or disorder that can be treated with the nucleic acid, e.g. cancer, Alzheimer's disease, beta-thalassemia, malaria, viral infections (including human immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A pharmaceutical composition has been developed which comprises a nucleic acid and at least one penetration enhancer. The compositions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Composition comprising nucleic acid and penetration enhancer - used particularly for delivering therapeutic antisense oligonucleotides across the gastrointestinal mucosa, provides high bioavailability
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             represent antisense oligonucleotides which can be used as the nucleic acid in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 ccttcctaccgcgtgcg 17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ccttcctaccgcgtgcg 18
                                                                          external guide sequences or aptamers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                       Cook PD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2; Page 83; 115pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                            98US-0082624
                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US11394.
                                                                                                                                                                                                                                                       Tillman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    disease; inflammatory bowel disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 17;
Pred. No.
                                                                                                                                                                                                                                                    Hardee GE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 20;
                                                                                                                                                                                                                                             Ecker DJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         emulsion;
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                                                                                                                                                                                                                                                 Manoharan M;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
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                                                                                                                                                    Anti-code oligomers which bind to bcl-2 mRNA - for the treatment of human solid tumours. een broast ----
                                                                                                                                                                                                WPI; 1995-139394/18.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       proliferation, or have biological activity against eukaryotic pathogens or retroviruses. They can be used for treating conditions including e.g., ulcerative colitis, Crohn's disease, inflammatory bowel disease or undue cellular proliferation. The compositions can enhance the local and systemic uptake and delivery of nucleic acids via non-parenteral routes of administration (e.g., via the alimentary canal, skin, eyes,
                                                                                                                                                                                                                                 Reed JC;
                                                                                                                                                                                                                                                                                           20-SEP-1993;
                                                                                                                                                                                                                                                                                                                         20-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                   WO9508350-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bcl-2 antisense oligonucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAQ86652;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAQ86652 standard; DNA; 17 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequences AAZ49344-Z49354, AAZ49384-Z49385, AAZ49387-Z49388 and AAZ49392-Z4993 represent antisense oligonucleotides designed to modulate the rate of cellular proliferation. The invention relates to new compositions for the non-parenteral delivery of oligonucleotides comprising at least one oligonucleotide in an emulsion. Oligonucleotides delivered via the compositions of the invention can be used to modulate expression of a cellular adhesion protein, modulate a rate of cellular reconstruction of the invention can be used to modulate expression of a cellular adhesion protein, modulate a rate of cellular reconstruction.
                                                                                                                                                                                                                                                            (REED/) REED J C.
                                                                                                                                                                                                                                                                                                                                                        30-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lymphoma; programmed cell death;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 20 BP; 2 A; 10 C; 4 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                pulmonary tract, urethra or vagina).
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                                                                                                                                                                                                                                                                                           93US-0124256
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Pred. No. 5
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line RS11846. The oligonucleotides are phosphodiesters targeted against the translation initiation site (AAQ86650-55) or the 5'-cap region (AAQ86656-58) of human bcl-2 pre-mRNAs. The AAQ86652 oligonucleotide provided pronounced DNA fragmentation.

Antisense oligonucleotides were tested for their ability to induce programmed cell death (DNA fragmentation) in the human lymphoma ce

cell

Example 12; Page 33; 108pp; English

human solid tumours, esp. breast cancer

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AAV28173
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                    27-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                  AAQ86654;
                                                                                                                                                                                                                                                                                                                                                                                                                                 AAQ86654 standard;
                                                                                                                         programmed cell death (DNA fragmentation) in the human lymphoma cell line RS11846. The oligonucleotides are phosphodiesters targeted against the translation initiation site (AAQ86650-55) or the 5'-cap region (AAQ86656-58) of human bcl-2 pre-mRNAs.
                                                                                                                                                                                           Anti-code oligomers which bind to bcl-2 mRNA - for the
                                                                                                                                                                                                                                                     20-SEP-1993;
                                                                                                                                                                                                                                                                    20-SEP-1994;
                                                                                                                                                                                                                                                                                  30-MAR-1995
                                                                                                                                                                                                                                                                                                W09508350-A
                                                                                                                                                                                                                                                                                                                                                                       Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy;
                                                                                                                                                                                                                                                                                                                                                                                      Bcl-2 antisense oligonucleotide
                                                                                                                                                                    Example 12; Page 33; 108pp; English.
                                                                                                                                                                                    of human solid tumours, esp. breast
                                                                                                                                                                                                          WPI; 1995-139394/18
                                                                                                                                                                                                                        Reed JC;
                                                                                                                                                                                                                                     (REED/) REED J C.
                                                                                                                                                                                                                                                                                                                                                               lymphoma; programmed cell death; ss
                                                                                                            Sequence 17
                                                                                                                                                        Antisense oligonucleotides were tested for their ability to induce
       AAV28173 standard; DNA; 17 BP
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                                           ccttcctaccgcgt 17
                                                                        14; Conservative
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                                                                                                            BP;
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                                                                                                            2 A; 8 C;
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100.0%; F1
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100.08;
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3'-5'
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                                                                                                            3 G; 4 T; 0 other;
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Pred. No.
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Pred. No.
                                                                                                                                                                                                                                                                                                               (antisense) sequence"
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                                                                                                                                                                                      cancer
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2.3e+02;
                                                                                 DB 16;
2.3e+02;
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                                                                                       Length 17
                                                                          Indels
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RESULT 1
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAV28155-268 represent oligonucleotides which can be purified using the method of the invention. The specification describes a matrix that comprises a support and an affinity unit that specifically and reversibly binds a target oligonucleotide, and comprises a sequence of bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative diseases, for treating a non-pathogen, non-hyperproliferative disease, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matrix for selective separation of oligo:nucleotide - useful for, e.g. large scale purification of anti-sense agents from their deletion derivatives formed during synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAV28173;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   affinity purification;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Antisense oligonucleotide to bcl-2 mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 17 BP; 2 A; 8 C; 4 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 79; 183pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1998-362922/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (ISIS-) ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-DEC-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Purification;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pathogen, retrovirus or other viruses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-DEC-1996;
                                                                                                                      Purification; oligonucleotide; matrix; affinity affinity purification; antisense; bcl-2; ss.
                                                                                                                                                                                                                              08-OCT-1998
                                                                                                                                                                                                                                                                                                             AAV28174 standard; DNA; 17 BP.
                                                                                                                                                                                      Antisense
                                                                                                                                                                                                                                                                       AAV28174;
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mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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25-JUN-1998

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RESULT 1
AAV28176
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
Matrix for selective separation of oligo:nucleotide - useful for, e.g. large scale purification of anti-sense agents from their deletion derivatives formed during synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           comprises a support and an affinity unit that specifically and reversibly binds a target oligonucleotide, and comprises a sequence of bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative diseases, for treating a non-pathogen, non-hyperproliferative disease, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic mathematical and the surface proteins and to inhibit a eukaryotic mathematical surface proteins.
                                                     WPI; 1998-362922/31.
                                                                                                                                   19-DEC-1996;
                                                                                                                                                             18-DEC-1997;
                                                                                                                                                                                      25-JUN-1998.
                                                                                                                                                                                                                W09827425-A1
                                                                                                                                                                                                                                         Synthetic
                                                                                                                                                                                                                                                                  affinity purification; antisense;
                                                                                                                                                                                                                                                                                                         Antisense oligonucleotide to bcl-2 mRNA.
                                                                                                                                                                                                                                                                                                                                      08-OCT-1998
                                                                                                                                                                                                                                                                                                                                                               AAV28176;
                                                                                                                                                                                                                                                                                                                                                                                        AAV28176 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 17 BP; 2 A; 8 C; 4 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matrix for selective separation of oligo:nucleotide - useful for, e.g. large scale purification of anti-sense agents from their deletion derivatives formed during synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          method of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAV28155-268 represent oligonucleotides which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 80; 183pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chen D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (ISIS-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-DEC-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                   14
                                                                                                                                                                                                                                                                                                                                                                                                                                                     4 tcctaccgcgtgcg 17
                                                                                                         ISIS PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ISIS PHARM INC
                                                                                Cole
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cole DL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      retrovirus or other viruses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                              DL,
                                                                                                                                                                                                                                                                             oligonucleotide; matrix; affinity unit;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          invention.
                                                                                                                                   96US-0769951
                                                                                                                                                            97WO-US23284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96US-0769951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     97WO-US23284.
                                                                              Srivatsa
                                                                                                                                                                                                                                                                                                                                                                                        DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Srivatsa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       formed during synthesis
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                                                                                                                                                                                                                                                                                                                                                                                        17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ligonucleotides which can be purified using The specification describes a matrix that
                                                                                                                                                                                                                                                                                                                                                                                        ΒP
                                                                              GS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 14;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                  bcl-2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                            sensor arrays, where each array comprises a unique probe oligonucleotide, which is the reverse complement of part of a unique target oligonucleotide present in a mixture of target deletion sequence oligonucleotides. The compositions form a method for characterizing a sample of target deletion oligonucleotides which are labelled and hybridize with the probe oligonucleotides of the sensor arrays. Such oligonucleotides and their targets are represented in AXX3368-X23709.
oligonucleotides and their Largues are representational Oligonucleotides characterized by the method form pharmaceutical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAV28155-268 represent oligonucleotides which can be purified using the method of the invention. The specification describes a matrix that comprises a support and an affinity unit that specifically and reversibly binds a target oligonucleotide, and comprises a sequence of bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative diseases, for treating a non-pathogen, non-hyperproliferative diseases, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic
                                                                                                                                                     This invention describes a novel composition comprising a number
                                                                                                                                                                                     Example 9; Page 150; 163pp; English.
                                                                                                                                                                                                                        oligonucleotides - usefu
deletion oligonucleotides
                                                                                                                                                                                                                                                        New compositions comprising sensor arrays made up of unique probe
                                                                                                                                                                                                                                                                                                                                                                                                                                01-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Deletion sequence oligonucleotide; sensor array; eukaryotic pathogen; probe; cellular adhesion modulator; cellular proliferation modulator; human retrovirus; human immunodeficiency virus; non-human retrovirus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Deletion sequence oligonucleotide 141.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                              (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                02-SEP-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO9911820-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HIV; primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAX23688;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAX23688 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     pathogen,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Page 82; 183pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-JUN-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     retrovirus or other viruses.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BP; 2
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                                                                                                                                                                                                                                                                                                                                                                                                97US-0923771
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                                                                                                                                                                                                                                        useful for characterizing a sample of target
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              82.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 14;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 19; 1
2.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 17;
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                                               compositions that are useful for modulating cellular adhesion or proliferation, and being active against a eukaryotic pathogen, a human retrovirus, a human immunodeficiency virus (HIV), or a non-human retrovirus, including influenza virus, Epstein-Barr virus, Respiratory Syncytial Virus or cytomegalovirus (CMV). The compositions enable characterization of deletion sequence oligonucleotides having related, but different nucleobase sequences, and quantification of different species of deletion sequence ("target") oligonucleotides in a mixture. Also, if the specificity of the oligonucleotide's nucleobase sequence for its reverse complement is not modified, the method may be performed using oligodeoxynucleotides.
Sequence 17 BP; 2 A; 8 C; 3 G; 4 T; 0 other;
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Search completed: June 28, 2002, Job time: 8090 sec 22:40:14

Qy

Query Match 82.4%; Sometive 82.4%; Sometime 100.0%; If Matches 14; Conservative 0;

Score 14; DB 20; Pred. No. 2.3e+02; Mismatches

Length 17; Indels

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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              length: 0
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Gapop 10.0 , Gapext 1.0
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/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
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/cgn2_6/ptodata/1/ina/B_COMB.seq:*
/cgn2_6/ptodata/1/ina/BCTUS_COMB.seq:*
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US-09-403-267-23
US-08-744-590-1
US-09-104-557-12
US-09-094-557-21
US-09-094-557-21
US-09-094-557-21
US-09-094-557-26
US-08-185-9498-85
US-08-870-930-56
US-08-870-930-75
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US-09-080-285-11
US-08-465-485A-10
US-08-465-485A-12
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12.482 Million cell updates/sec
                                                                                                              sequence 21, sequence 85, sequence 85, sequence 74, sequence 77, sequence 77, sequence 77, sequence 55, sequence 57, sequence 57, sequence 57, sequence 57, sequence 57, sequence 57, sequence 58, sequence 58, sequence 33, sequence 33, sequence 33, sequence 33, sequence 33, sequence 33, sequence 33, sequence 33, sequence 34, sequence 36, sequence 36, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, sequence 38, seque
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#### ALIGNMENTS

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US-08-465-485A-11
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                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/465,485A
FILING DATE: 05-7UN-1995
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/124,256
FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
APPLICATION UMBER: US 07/840,716
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION DATA:
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APPLICATION DATA:
                                                                                                                                                                 TELEPHONE: (408) 436-2070
TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL
               TOPOLOGE: PES
                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                           REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                          FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
NAME: FORTHPY, Andrew D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Reed, Joh
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS
                                                       STRANDEDNESS:
TOPOLOGY: lin
                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER:
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OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Arlington
STATE: Virginia
COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, ADDRESSEE: P.C.
STREET: 1755 S. Jefferson Davis Hwy., Suite 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMATION:
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                                                            linear
                                                                                                                                                                                                                                                                                                                                           UMBER: US 07/288,692
22-DEC-1988
                                        DNA (genomic)
                                                                              single
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                                                                                                                                                                                                                                                      3335-070-55 CONT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -09-080-285-11
                                                            Matches
                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                        TELEFAX: (408) 436-2075 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 0 FILING DATE: 20-SEP-1993 PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 08/465,485
FILING DATE: 05-JUN-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Regulation of bcl-2 Gene Expression NUMBER OF SEQUENCES: 29
                                                                                                                                                                                                                                                                                                   NAME: FOTTNEY, Andrew D.
REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 33:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
FILING DATE: 22-DEC-1988
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                                                                                                                                                                   MOLECULE TYPE:
                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
                                                                                                                                                   ANTI-SENSE:
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STATE: Virginia
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                                                                                                                                                                                                            nucleic acid
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                                                         Conservative
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SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                   YES
                                                                                                                                                                                 linear
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                                                                        Score 17; I
Pred. No. 1.
                                                            Mismatches
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US-08-465-485A-10
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                                                                                        ; Sequence 12, Application US/08465485A ; Patent No. 5831066
                                                                                                                                            RESULT
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                                                                                                                           US-08-465-485A-12
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                                                                                                                                                                                                                                                          Matches
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Best Local (
                                                                            GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
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FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
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                      APPLICANT: Reed, John
TITLE OF INVENTION: Regulation of bcl-2 Gene Expression
NUMBER OF SEQUENCES: 29
                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE:
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ATTORNEY/AGENT INFORMATION:
             CORRESPONDENCE ADDRESS:
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SOFTWARE: PatentI
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                                                                                                                                                                                                                                                                        Local Similarity
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TOPOLOGY: lir
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1755 S. Jefferson Davis Hwy., Suite 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (408)
                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                         YES
                                                                                                                                                                                                                                                                                                                                                                                    linear
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SYSTEM: PC-DOS/MS-DOS
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OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT
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                                                                                                                                                                                                                                                                           100.0%;
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100.0%; Pred. No.
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                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
TYPE: nucleic acid
        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
SOFTWARE: PatentIn Rel CURRENT APPLICATION DATA:
                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 7
                                                                                                                                                                                                                                                      TITLE OF INVENTION:
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REFERENCE/DOCKET NUMBER: 3335-070-55 CONT
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
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                                                                                                                               STREET: 1755 S. CITY: Arlington STATE: Virginia
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APPLICATION NUMBER:
FILING DATE: 22-DEC-
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APPLICATION NUMBER: US,
FILING DATE: 05-JUN-19
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0:
FILING DATE: 21-FEB-1992
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CTTY: Arlington
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                                                                                                                   COUNTRY:
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REGISTRATION NUMBER: 34,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: FILING DATE: 20-SEE
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Y: U.S.A.
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1755 S. Jefferson Davis Hwy., Suite 400
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1755 S. Jefferson Davis Hwy., Suite 400
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SYSTEM: PC-DOS/MS-DOS
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; ANTI-SENSE: YE
US-09-080-285-10
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Best Local :
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INFORMATION FOR SEQ ID NO:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/465,485
FILING DATE: 05-UN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/124,256
FILING DATE: 20-SEP-1993
                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0.
                                                                                                                                                       SUFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: Regulation of bcl-2 Gene Expression NUMBER OF SEQUENCES: 29
                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS
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TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                   CITY: Arlington
STATE: Virginia
COUNTRY: U.S.A.
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                                                                                                       CLASSIFICATION:
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CLASSIFICATION:
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Pred. No.
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; ANTI-SENSE: YES
US-09-080-285-12
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                TELEFAX: 215-540-5818 INFORMATION FOR SEQ ID NO:
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REFERENCE/DOCKET NUMBER: 3335-070-55 CONT
TELECOMMUNICATION INFORMATION:
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LENGTH: 17 base pairs
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA: US 07/840,716
                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/044,664
FILING DATE: 18-APR-1997
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Wistar Institute of Anatomy, and Biology
APPLICANT: Fraser, Nigel W.
APPLICANT: Zabolotny, Janice M.
APPLICANT: Krummenacher, Claude F.
TITLE OF INVENTION: Method and Compositions for Stabilizing
TITLE OF INVENTION: Unstable Gene Transcripts
                                                        TELECOMMUNICATION INFORMATION: TELEPHONE: 215-540-9200
                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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SEQUENCE CHARACTERISTICS:
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STRANDEDNESS: sing
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                                                                                            REGISTRATION NUMBER: 31 REFERENCE/DOCKET NUMBER:
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                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/09/403,267
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Spring House
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                                                                                                                                     Bak, Mary E.
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100.0%; Pred. No. 47;
tive 0; Mismatches
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                                                                                                        US-08-744-590-1
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                              Matches
                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                             TELEFAX: (617)227-5941 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: unknown
MOLECULE TYPE: other nucleic acid
DESCRIPTION: /desc = "probe/primer PFPB8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION:
                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: SQ TELECOMMUNICATION INFORMATION: TELEPHONE: (617)227-7400
                                                                                                                                                                                                                                                                                                            FILING DATE: February 10, 1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/034,
FILING DATE: March 19, 1993
ATTORNEY/ACENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: 1
FILING DATE: Februar
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                                                                                                                      MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: FILING DATE: No. 6 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: 60 S
CITY: Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 37 base pairs
                             Local Similarity hes 13; Conserv
                                                                                                                                                                                                                                                                                     NAME: Arnold, Beth E. REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY:
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                                                                                                                                      TOPOLOGY:
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   1 ccttcctaccgcgtg 15
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                                                                                                                                                                nucleic acid
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                                                                                                                                                                                 24 base pairs
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                                                                                                                                                                                                           (617)227-5941
TD NO: 1:
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                                Conservative
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82.4%;
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                                              69.4%;
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                                                                                                                                                                                                                                                                                     35,430
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Pred. No. 4.4e+02;
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                                Score 11.8; DB 3;
Pred. No. 7e+02;
0; Mismatches 2;
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                                                             Length 24;
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US-09-094-557-19/c
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                                                                                           Sequence 19, Application US/09094557 Patent No. 6225531
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                                                                                GENERAL INFORMATION:
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APPLICATION NUMBER: 08/744,590

APPLICATION DATA:

PRIOR APPLICATION DATA:

PRIOR APPLICATION DATA:

OR APPLICATION NUMBER: 08/388,272744,590
                               APPLICANT:
 APPLICANT:
                APPLICANT:
                                                               APPLICANT:
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REFERENCE/DOCKET NUMBER: 24736-2005B
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PATOK AFFECTION UNMBER: 08/034, FILING DATE: 19-MAR-1993 ATTORNEY/AGENT INFORMATION: NAME: Seidman, Stephanie L 19-776
                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 08/31 FILING DATE: 10-FEB-1995 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                     Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                    TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM:
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                                                                                                                                                                                         3 CATTCCCACCGCGTG .17
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                                                                                                                                                                                                                                                                                                                                                                                              nucleic acid
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Yoshikawa, Masaaki
                              Umemoto, Naoyuki
Ishida, Isao
                                                            Kakitani, Makoto
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               Iwamatsu, Akihiro
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SYSTEM: DOS
                                                                                                                                                                                                                                                                                                                                                                   linear
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86.7%;
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                                                                                                                                                                                                                                                                Score 11.8; DB 3; Pred. No. 7e+02;
                                                                                                                                                                                                                                                     Mismatches
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; MOLECULE TYPE:
US-09-094-557-19
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                                                                                                                                                                                                                     RESULT
                                                                                                                                             Sequence 21, Application US/09094557 Patent No. 6225531 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                           Matches
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                                                                       APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
     TITLE OF INVENTION:
                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Bent, Stephen A.
REGISTRATION NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 08:
TELECOMMUNICATION INFORMATION:
TELECHONE: (202)672-5300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 26 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 15-DEC-PRIOR APPLICATION NUMBER: 1
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APPLICATION NUMBER: JP 1:
FILING DATE: 17-JUN-1994
PRIOR APPLICATION DATA:
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APPLICATION NUMBER: PCT/JP96/03653
FILING DATE: 13-DEC-1996
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TITLE OF INVENTION: GLUCAN ELICITOR RECEPTOR, DNA MOLECULE
TITLE OF INVENTION: CODING THEREFOR, FUNGUS-RESISTANT PLANTS TRANSFORMED WITH
TITLE OF INVENTION: THE DNA MOLECULE AND METHOD FOR CREATING THE PLANTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                   26 CTTCCTACCCCATGC 12
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CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                         Local Similarity les 13; Conserv
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OPERATING SYSTEM: PC-DOS/MS-DOS
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20007-5109
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                                  Umemoto, Naoyuki
Ishida, Isao
Iwamatsu, Akihiro
Yoshikawa, Masaaki
Yamaoka, Naoto
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3000 K Street, N.W., Suite 500
                                                                                                                           Kakitani, Makoto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (202)672-5399
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GLUCAN ELICITOR RECEPTOR, DNA MOLECULE CODING THEREFOR, FUNGUS-RESISTANT PLANTS TRANSFORMED WITH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JP 136100/1994
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                                                                                                                                                                                                                Sequence 26, Application US/09094557 Patent No. 6225531
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FILING DATE: 13-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 136100/1994
FILING DATE: 17-JUN-1994
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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ADDRESSEE: Foley & Lardner
STREET: 3000 K Street, N.W., Suite 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: (202)672-5300
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PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
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                              APPLICANT: YOShikawa, Masaaki
APPLICANT: Yamaoka, Naoto
TITLE OF INVENTION: GLUCAN ELICITOR RECEPTOR, DNA MOLECULE
TITLE OF INVENTION: CODING THEREFOR, FUNGUS-RESISTANT PLANTS TRANSFORMED WITH
TITLE OF INVENTION: THE DNA MOLECULE AND METHOD FOR CREATING THE PLANTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 14-FEB-1996 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
                                                                                                                                                                             APPLICANT:
CORRESPONDENCE ADDRESS:
                  NUMBER OF SEQUENCES:
                                                                                                                        APPLICANT:
                                                                                                                                         APPLICANT:
                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: PC-DOS/MS-DUS
OPERATING SYSTEM: PC-DOS/MS-DUS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                        11 CTTCCTACCCCATGC 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 29, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: JP 347823/1995
FILING DATE: 15-DEC-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/09 FILING DATE: 15-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Washington
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                        2 cttcctaccgcgtgc 16
                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    : 28 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bent,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              D.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     904136
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                                                                                                     Iwamatsu, Akihiro
Yoshikawa, Masaaki
                                                                                                                                       Umemoto, Naoyuki
Ishida, Isao
                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                         Kakitani, Makoto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   THE DNA MOLECULE AND METHOD FOR CREATING THE PLANTS
                                                                                                                                                                                                                                                                                                                                                                                                                69.48;
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Pred. No. 7.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                DB 4;
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US-08-185-949B-85
                                                                                                                                                                                                                          Sequence 85, Applicat Patent No. 5874279 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: JP 34
FILING DATE: 15-DEC-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08
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COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: 08
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202)672-5300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: Bent, Stephen A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 13-DEC-
PRIOR APPLICATION DATA:
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PRIOR APPLICATION DATA:
                                                                                                                           CORRESPONDENCE ADDRESS
                                                                                                                                                             TITLE OF INVENTION:
                                                                                                                                                                                           APPLICANT: Mark D. Cochran APPLICANT: Richard D. Macdonald
                                                                                                                                            NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Foley & Lardner STREET: 3000 K Street, N.W., Suite 500 CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
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TOPOLOGY: lin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: PCT/JP96/03653 FILING DATE: 13-DEC-1996
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                                                                               CITY:
                                             COUNTRY:
                                                                STATE:
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                                                                                                            ADDRESSEE:
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                                                                             New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nucleic acid
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                                                                New York
                                                                                                                                                                                                                                                           Application US/08185949B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28 base pairs
                                                                                              1185 Avenue of the Americas
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                                                 USA
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                             John P. White
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                                                                                                                                                                                                                                                                                                                                                                                                                         69.4%;
                                                                                                                                                              Rhinotracheitis Virus
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Pred. No. 7.1e+02;
0; Mismatches 2;
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RESULT 14
US-08-870-930-56/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No. 6168778
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 56, Application US/08870930 Patent No. 6168778
                                                                                                                                                                                                                                          SOFTWARE: WORDPETCH 8.0
CURRENT APPLICATION DATA;
APPLICATION NUMBER: US/08/87
FILING DATE: 6 JUNE 1947
CLASCITTON
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                                                                                                                                                                          EILING DATE: 6 JUNE 1997
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: Barry J. Swanson
REGISTRATION NUMBER: 33,21
                                                                              TELEFAX: (303) 793-3433
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: (212) 278-0525
INFORMATION FOR SEQ ID NO: 85:
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MOLECULE TYPE:
                                                                                                                            REFERENCE/DOCKET NUMBER: NETELECOMMUNICATION INFORMATION: (303) 793-3333
                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.5 inch, 1.4 mb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: NEBOJSA JANJIC, LARRY GOLD, PAUL G. SCHMIDT, CHANDRA VARGEESE, MICHAEL TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR (VEGF)
TITLE OF INVENTION: NUCLEIC ACID LIGAND COMPLEXES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: White, John P.
REGISTRATION NUMBER: ,678
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 278-0400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/185,949B FILING DATE: 03-NOV-1994 CLASSIFICATION: 435
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                            TYPE: nucleic acid
STRANDEDNESS: singl
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OPERATING SYSTEM: MS-DOS
                 TOPOLOGY:
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nes 13; Conserv
                                                               LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                          Colorado
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8400 East Prentice Avenue, Suite #200
                                                                                                                                                                                                                                                                                                                                                                                                        USA
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               linear
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86.7%;
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                                                                                                                                                                                 33,215
                                                                                                                                                                 NEX61
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Pred. No. 7.3e+02;
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; OTHER INFORMATION: C in position 28 is 2'-OH C US-08-870-930-57
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                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: BAITY J. SWANSON
REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NEX6
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 793-333
TELEFAX: (303) 793-3433
INFORMATION FOR SEQ ID NO: 57:
                                                                  Matches
                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 57, Application US/08870930 Patent No. 6168778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 12; Conserv
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                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: WordPerfect 8.0 CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: NEBOJSA JANJIC, LARRY GOLD, PAUL G. SCHMIDT, CHANDRA VARGEESE, MICHA TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR (VEGF)
TITLE OF INVENTION: NUCLEIC ACID LIGAND COMPLEXES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
OTHER INFORMATION: All pyrimidines are 2'-fluoro
                                                                                                                                                                                                                              MOLECULE TYPE: RNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
                                                                              y Match 67.1%;
Local Similarity 92.3%;
16 CTTCCTACCGCAT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/0 FILING DATE: 6 JUNE 1997 CLASSIFICATION: 536
                                                                                                                                                                                            OTHER INFORMATION: All pyrimidines are 2'-fluoro
                                                                                                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                             STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM COMPONENTING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIUM TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STATE:
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                              2 cttcctaccgcgt 14
                                                                                                                                                                                                                                                                                            LENGTH:
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Reed, J.C.
Regulation of bcl-2 gene expression
Patent: US 5831066-A 12 03-NOV-1998;
Location/Qualifiers
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Sequence 12 from patent US 5831066.
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Sreekrishna,K., Prevatt,W.D., Thill,G.P., Davis,G.R., Koutz, Barr,K.A. and Hopkins,S.A.
Production of Bacillus entomotoxins in methylotrophic yeast Patent: US 5827684-A 17 27-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  שין שיי שיי שיי שאח linear PRI 19-AUG-1995
Homo sapiens (C.2.PL252) rearranged T-cell receptor delta chain
(TCRDV2J1) mRNA, partial V-region.
L39499
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                                                                                                                                                                                                                                                                                                                                                                                              The delta T cell receptor repertoire in human colon and peripheral blood is oligoclonal irrespective of V region usage J. Clin. Invest. 96 (2), 1108-1117 (1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 47)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDR3 region; T-cell receptor alpha-chain; T-cell receptor delta; antigen recognition site; junctional region; rearranged; variable
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unclassified
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                                                                                                                                                                                                                             /standard_name="(V delta-2/ J delta-1)"
/note="putative"
                                                                                                                                                                                                                                                                             /tissue_type="colon"
<1...>47
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1. .47
                                                             /translation="ACDTLPTALPNAYKL"
19 c 6 g 10 t
                                                                                       /protein_id="AAC41800.1"
/db_xref="GI:950449"
                                                                                                                    /codon_start=
                                                                                                                                                           /gene="TCRDV2J1"
/note="This CDS feature is included to show the
                                                                                                                                                                                                   /gene="TCRDV2J1"
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/clone="C.2.PL252"
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AX204129.1 GI:15393623
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13; Conserv
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1 (bases 1 to 52)
1 (bases 1 to 52)
Beldjord,K., Beldjord,C., Macintyre,E., Even,P. and Sigaux,F.
Beripheral selection of V delta 1+ cells with restricted T cell
receptor delta gene junctional repertoire in the peripheral blood
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                                                                                                                             Shimkets, R.A. and Leach, M.
Nucleic acids containing single nucleotide polymorphisms and
                                                                                                                                                              Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates; 1 (bases 1 to 51)
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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WO 0148245-A 235 05-JUL-2001;
Corporation (US)
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/db_xref="taxon:9606"
/note="single nucleotide polymorphism
                              /db_xref="taxon:9606"
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Tasset,D., Pagratis,N., Jayasena,S. and Gold,L.
High affinity nucleic acid ligands of cytokines
Patent: US 5972599-A 44 26-OCT-1999;
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                                                                                                                                                      Chowers,Y., Holtmeier,W., Harwood,J., Morzycka-Wroblewska,E.
                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unclassified
                                                                                                                                       Kagnoff, M.F
                                                                                                                                                                                                                            Homo sapiens intestine cDNA to mRNA.
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                                                                                                 Med. 180 (1), 183-190 (1994)
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m 16} g 8 t
/tissue_type="intestine"
15 c 12 g 1
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13 c 29 g
                           /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                   Location/Qualifiers
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82.4%;
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Pred. No. 3.4e+04;
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Pred. No. 3.3e+04;
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Score 12;

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Length 47;

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Best Local
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synthetic construct
artificial sequence.
1 (bases 1 to 21)
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Ax012319
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Ramshaw,J.A., Galanis,M., Vaughan,P.R. and Werkmeister,J.A.
Stable expression of triple helical proteins
Patent: EP 0950098-A 23 20-OCT-1999;
COMMW SCIENT IND RES ORG (AU)
Location/Qualifiers
                                                                                                                                                                                                                                                                           AX022216 25 bp
Sequence 23 from Patent EP0950098.
AX022216
                                                                                                                                                                                                                                  unidentified
                                                                                                                                                                                                                                              unidentified
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Patent: WO 9955316-A 7 04-NOV-1999;
MAX PLANCK GESELLSCHAFT (DE); WIESE MARTIN
Location/Qualifiers
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12; Conser
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                                                                                                           /db_xref="taxon:32644"
5 c 13 g
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3 c 10 g
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/db_xref="taxon:32630"
                                                                                                                                /organism="unidentified"
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from Patent W09955316.
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86.7%;
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86.78;
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Pred. No. 6.3e+04;
0; Mismatches 2;
                                                 Score 11.8; DB 6;
Pred. No. 6.2e+04;
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Stable expression of the BD008657
BD008657 GI:18637030
JP 2001502548-A/17.
unidentified.
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l Similarity 86.7%;
l3; Conservative
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Sequence 23 from Patent W09818918.
AX030742 GI:10278250
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                                                                                                                        PAUL RICHARD VAUGHAN, MARIA GALANIS, JOHN ALAN MAURICE RAMSHAW, JEROME ANTHONY WERKMEISTER C12N15/12, C12N15/81, C12N15/53, C07K14/78, A61K38/39 CC
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/db_xref="taxon:32644"
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          /db_xref="taxon:32644"
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Pred. No. 6.2e+04;
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Matches 13; Conserv

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Score 11.8; DB 6; Pred. No. 6.2e+04; D; Mismatches 2

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AR125805/c
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FEATURES
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AR125801/c
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Best Local Similarity 86.
Matches 13; Conservative
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Best Local Similarity 86.7
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17 ACCETTACCACEGEG 3
ACCCATCCTACCCCG 13
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Janjlo, N., Gold, L. and Tasset, D.
High affinity ligands of basic fibroblast growth factor and
                                                                                                                                                                                                                                                                                                  AR125805 30 bp DNA
Sequence 147 from patent US 6177557.
AR125805
                                                                                                                                                                      Patent: US 6177557-A 147 23-JAN-2001;
                                                                                                                                                                                                                                               Unknown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Patent: US 6177557-A 143 23-JAN-2001;
Location/Qualifiers
1. .30
                                                                                                                                                                                                                                                              Unknown.
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Janjic,N., Gold,L. and Tasset,D.
High affinity ligands of basic fibroblast growth factor and
                                                                                                                                                                                                                                     Unclassified.
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Sequence 143 from patent US 6177557.
AR125801
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4 c 17 g
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4 c 17 g
                                        69.4%; Score 11.8; DB 6; Length 30; 86.7%; Pred. No. 6.1e+04; tive 0; Mismatches 2; Indels
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Search completed: June 28, 2002, 22:11:11 Job time: 8362 sec

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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 75
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IDENTITY_NUC Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1736436 segs, 858457221 residues
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                                                                                                                                                                                                                                                               Length
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                                                                                                                                 AAQ86654
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                                                                                                                                                                                                                                                                                                                                    SUMMARIES
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Antisense oligomer
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Deletion sequence
Target bcl-2 antis
bcl-2 targetted an
                                                                                                                         Bcl-2 antisense ol
Antisense oligonuc
Deletion sequence
Target bcl-2 antis
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rela	935	22	67	67.1	11.4	ΰ
tumour rela	12	22	67	67.1	11.4	4.
tumour rela	2945	22	62	67.1	•	ū
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VEGF-binding nucle	9	21	61	67.1	11.4	=
) N N	139	22	55	.7	11.4	0
oligonu	$\sim$	22	51	67.1	11.4	39
in linker	573	21	36	67.1	11.4	88
er for Ngo	558	20	32	67.1	11.4	37
primer	514	20	20		11.4	8
vlori vacA	$\sim$	19	20	67.1	11.4	5
01500	AAD11596	22	50	.e	11.8	4
Non-target oligo N	159	22	50		11.8	3
iclentide s	615	21	40	۳	11.8	32
RNA	890	22	30	69.4	11.8	31
idand	890	22	30	.9	11.8	30
acv1t	746	21	30	.9	11.8	29
2 RNA	ü	16	30	.0	11.8	28
wo member famil	AAQ93300	16	30	.9	11.8	27
nthetic human c	AAV27135	19	25	.9	11.8	26
מם ו	AAZ24128	21	21	.9	11.8	25
	AAF02634	21	17	.9	11.8	24
head ribozy	26	21	17	69.4	11.8	23
n DNA contai	AAH79620	22	51		12.2	22
reamma 2'NH	AAT87143	18	37		12.2	21
PCR primer for clo	AAX81049	20	27	۳	12.2	20
acterium tub	AAV63985		27	٢	12.2	19
Take Concordance	AAT27370		19	2	14	18
hc1-2	AAX18698		17		14	17
hol-Vanti	-AAX18696		17	82.4	14	16
letion	AAX23689		17	Ν.	14	15
etion s	AAX23687		17	82.4	14	14
Sense	AAV28177		17	۲,	14	13
tisense	AAV28175	19	17	82.4	14	12
-2 antisens	AAQ86655	16	17	82.4	14	11
l-2 antisense	AAQ86653	16	17	82.4	14	10

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a

# AAQ86654 standard; DNA; 17 ВP

ALIGNMENTS

AAQ86654 RESULT

Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy; lymphoma; programmed cell death; ss.

PI XX	PR XX	X F	X PD	Y PN	XX	H H	FH	SO XX	Χ¥	KW	X DE	XX	×	AC	× H
(REED/) REED J C. Reed JC;	20-SEP-1993; 93US-0124256.	20-SEP-1994; 94WO-US10725.	30-MAR-1995.	WO9508350-A.	=	c_feature	Key Location/Qualifiers	Synthetic.	lymphoma; programmed cell death; ss.	Anticode oligomer; antisense oligonucleotide; bcl-2; cz	Bcl-2 antisense oligonucleotide.	27-SEP-1995 (first entry)		AAQ86654;	AAQ86654 standard; DNA; 17 BP.

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RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       line RS11846. The oligonucleotides are phosphodiesters targe against the translation initiation site (AAQ86650-55) or the region (AAQ86656-58) of human bc1-2 pre-mRNAs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of human solid tumours, esp. breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Anti-code oligomers which bind to bcl-2 mRNA - for the treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1995-139394/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 17 BP; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  programmed cell death (DNA fragmentation) in the human lymphoma cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antisense oligonucleotides were tested for their ability to induce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 12; Page 33; 108pp; English.
                                                                      reversibly binds a target oligonucleotide, and comprises a sequence of bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative diseases, for treating a non-pathogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   affinity purification; antisense; bcl-2; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAV28176;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAV28176
                                                                                                                                             AAV28155-268 represent oligonucleotides which can be purified using the method of the invention. The specification describes a matrix that comprises a support and an affinity unit that specifically and
                                                                                                                                                                                                                                                    Matrix for selective separation of oligo:nucleotide - useful for, e.g. large scale purification of anti-sense agents from their
                                                                                                                                                                                                                                                                                                                              Chen D,
                                                                                                                                                                                                                                                                                                                                                                                       19-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                               25-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             W09827425-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Purification; oligonucleotide; matrix; affinity unit;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Antisense oligonucleotide to bcl-2 mRNA
                                           of hyperproliferative diseases, for treating a non-pathogen, non-hyperproliferative disease, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic
                                                                                                                                                                                                           Disclosure; Page 82; 183pp; English.
                                                                                                                                                                                                                                        deletion
                                                                                                                                                                                                                                                                                                 WPI; 1998-362922/31.
                                                                                                                                                                                                                                                                                                                                                          (ISIS-) ISIS PHARM INC
                             pathogen, retrovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 gaccettectacegegt 17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      standard;
                                                                                                                                                                                                                                        derivatives
                                                                                                                                                                                                                                                                                                                              Cole DL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                         96US-0769951
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA;
                                                                                                                                                                                                                                                                                                                              Srivatsa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 C;
                                                                                                                                                                                                                                        formed during synthesis
                                or other viruses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                 es;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 17; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
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Best Local Similarity
Matches 17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAX23688 standard;
                                                   proliferation, and being active against a eukaryotic parhogen, a number retrovirus, a human immunodeficiency virus (HIV), or a non-human retrovirus, including influenza virus, Epstein-Barr virus, Respiratory Syncytial Virus or cytomegalovirus (CMV). The compositions enable characterization of deletion sequence oligonucleotides having related, but different nucleobase sequences, and quantification of different species of deletion sequence ("target") oligonucleotides in a mixture. Also, if the specificity of the oligonucleotide's nucleobase sequence Also, is the specificity of the oligonucleotide's nucleobase sequence for its reverse complement is not modified, the method may be performed.
                                                                                                                                                                                                                                   oligonucleotides. The compositions form a method for characterizing a sample of target deletion oligonucleotides which are labelled and hybridize with the probe oligonucleotides of the sensor arrays. Such oligonucleotides and their targets are represented in AAX23548-X23709. Oligonucleotides characterized by the method form pharmaceutical oligonucleotides characterized by the method form pharmaceutical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         human retrovirus; human immunodeficiency virus; non-human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Deletion sequence oligonucleotide; sensor array; eukaryotic pathogen; probe; cellular adhesion modulator; cellular proliferation modulator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Deletion sequence oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAX23688;
                                                                                                                                                                                                                                                                                                                            sensor arrays, where each array comprises a unique probe oligonucleotide, which is the reverse complement of part of a unique target oligonucleotide present in a mixture of target deletion sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New compositions comprising sensor arrays made up of unique probe oligonucleotides - useful for characterizing a sample of target
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              02-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9911820-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-JUN-1999
                                                                                                                                                                                                  compositions that are useful for modulating cellular adhesion or proliferation, and being active against a eukaryotic pathogen, a human
                                                                                                                                                                                                                                                                                                                                                                                    This invention describes a novel composition comprising a number of
                                                                                                                                                                                                                                                                                                                                                                                                                        Example 9; Page 150; 163pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          deletion oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1999-205198/17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (ISIS-) ISIS PHARM INC
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                                    oligodeoxynucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Srivatsa GS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
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Sequence 17 BP; 2 A; 8 C; 3 G; 4 T; 0 other;

Sequence 17

B₽;

2 A;

8 C;

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G;

4 T; 0 other;

100.0%;

Pred. No. 6.9;

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AAX18697
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Best Local
                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity Matches 17; Conserv
                                                                                                                                                        cells; and (ii) increases stability of the nucleic acid. Oral administration avoids the complications and expense of intravenous or other methods of administration. AAX18669 to AAX18799 and AAX18801 represent antisense oligonucleotides which can be used as the nucleic acid in the method of the invention.
                                                                                                                                                                                                                             deficiency virus (HIV)), inflammation, in human or animal medicine; (11) to investigate the role of a gene or gene product in non-human animals; and (111) to modulate gene expression in cells, tissues or organs. The compositions provide bioavailability of at least 15, or preferably 17-35.8. The penetration enhancer improves: (1) transport of the nucleic acid across the mucosa of the alimentary canal and into
                                                                                                                                                                                                                                                                                                                         nucleic acid and at least one penetration enhancer. The compositions used: (1) to treat or prevent any disease or disorder that can be treated with the nucleic acid, e.g. cancer, Alzheimer's disease, beta-thalassemia, malaria, viral infections (including human immune
                                                                                                                                                                                                                                                                                                                                                                                                                                           Composition comprising nucleic acid and penetration enhancer - used particularly for delivering therapeutic antisense oligonucleotides across the gastrointestinal mucosa, provides high bioavailability
                                                                                                                                 Sequence 17 BP; 2 A; 8 C; 3 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                    A pharmaceutical composition has been developed which comprises a
                                                                                                                                                                                                                                                                                                                                                                                                                  Example 2; Page 85; 115pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1999-106077/09.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hardee G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JUL-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUL-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              alimentary canal; transport; gastrointestinal mucosa; cancer; Alzheimer's disease; beta-thalassemia; malaria; viral infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cellular adhesion protein; proliferation; antisense oligonucleotide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Target bcl-2 antisense oligonucleotide #29.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAX18697 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAX18697;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 gaccettcctaccgcgt 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4
gacccttcctaccgcgt 17
              gacccttcctaccgcgt 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      inflammation;
                                                           l Similarity
17; Conserv
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                                                          Conservative
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                                                                      100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17
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                                                                     Score 17; DB Pred. No. 6.9;
                                                        Mismatches
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                                                                                   DB 20;
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                                                                                   Length 17;
                                                        Indels
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                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                     initiation site in the mRNA coding strand of the human bcl-2 gene and is complementary to this region. It reduces the expression of bcl-2 gene product thereby inducing programmed cell death of bcl-2 gene product thereby inducing programmed cell
                   affinity purification; antisense; bcl-2;
                               Purification;
                                                                                                    AAV28169;
                                                     Antisense oligonucleotide to bcl-2 mRNA
                                                                                                                         AAV28169 standard; DNA; 20 BP.
                                                                                                                                                                                                                                                                                     Sequence 20 BP; 2 A; 10 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Page 13; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                      Anti-code oligomers which bind to bcl-2 mRNA - for the treatment of human solid tumours, esp. breast cancer
                                                                                                                                                                                                                                                                                                            death of certain cancer cells.
                                                                                                                                                                                                                                                                                                                                                       The antisense oligonucleotide TI-AS straddles the translation-
                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1995-139394/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Reed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAQ86643;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAQ86643 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (REED/) REED J C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-MAR-1995.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO9508350-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Antisense oligomer TI-AS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  leukemia; lymphoma; solid tumor; breast cancer; autoimmune disease;
                                                                                                                                                                                3 cccttcctaccgcgt 17
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                                                                                                                                                                                                                              Conservative
                                                                           (first entry)
                             oligonucleotide; matrix; affinity unit;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93US-0124256
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1..20
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/note= "3'-5' (antisense) sequence"
                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                                                                    88.2%;
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                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                         Score 15;
Pred. No.
                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                   DB 16;
                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                   Length 20
                                                                                                                                                                                                                              Indels
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Synthetic

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AAX23681
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAV28155-268 represent oligonucleotides which can be purified using the method of the invention. The specification describes a matrix that comprises a support and an affinity unit that specifically and reversibly binds a target oligonucleotide, and comprises a sequence of bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of hyperproliferative diseases, for treating a non-pathogen, non-hyperproliferative disease, e.g. Alzheimer's, for modula expression of cell surface proteins, and to inhibit a eukary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matrix for selective separation of oligo:nucleotide - useful for, e.g. large scale purification of anti-sense agents from their
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1998-362922/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (ISIS-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9827425-A1
                                                                                                                                                                                                    Deletion sequence oligonucleotide; sensor array; eukaryotic pathogen; probe; cellular adhesion modulator; cellular proliferation modulator; human retrovirus; human immunodeficiency virus; non-human retrovirus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 20 BP; 2 A; 10 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             synthetic oligonucleotides, specifically antisense agents, for treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 76; 183pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              deletion derivatives formed during synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-DEC-1997;
                                                                                                                                                                                                                                                        Deletion sequence oligonucleotide 134.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pathogen, retrovirus or other viruses.
                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                              AAX23681;
                                                                                                                                                                                                                                                                                                                                         AAX23681 standard; DNA; 20 BP
 Chen D,
                            (ISIS-) ISIS PHARM INC
                                                      02-SEP-1997;
                                                                                01-SEP-1998;
                                                                                                          11-MAR-1999
                                                                                                                                    WO9911820-A1
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                                                                                                                                                                                                                                                                                                                                                                                                         cccttcctaccgcgt 15
                                                                                                                                                                                        primer;
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Srivatsa GS
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                    (first entry)
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                                                      97US-0923771
                                                                                 98WO-US18084.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           88.2%;
100.0%;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       eukaryotic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   modulating
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Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sample of target deletion oligonucleotides which are labelled and hybridize with the probe oligonucleotides of the sensor arrays. Such oligonucleotides and their targets are represented in AAX23548-X23709. Oligonucleotides characterized by the method form pharmaceutical compositions that are useful for modulating cellular adhesion or proliferation, and being active against a eukaryotic pathogen, a human retrovirus, a human immunodeficiency virus (HIV), or a non-human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This invention describes a novel composition comprising a number of sensor arrays, where each array comprises a unique probe oligonucleotide, which is the reverse complement of part of a unique target oligonucleotide present in a mixture of target deletion sequence oligonucleotides. The compositions form a method for characterizing a oligonucleotides. The compositions form a method for characterizing a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      retrovirus, including influenza virus, Epstein Barr virus, Respiratory Syncytial Virus or cytomegalovirus (CMV). The compositions enable characterization of deletion sequence oligonucleotides having related, but different nucleobase sequences, and quantification of different species of deletion sequence ("target") oligonucleotides in a mixture. Also, if the specificity of the oligonucleotide's nucleobase sequence for its reverse complement is not modified, the method may be performed
                                                                                                                                                                                                                                                                                                  Cellular adhesion protein; proliferation; antisense oligonucleotide; alimentary canal; transport; gastrointestinal mucosa; cancer; aliment's disease; beta-thalassemia; malaria; viral infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             deletion oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New compositions comprising sensor arrays made up of unique probe oligonucleotides - useful for characterizing a sample of target
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 1999-205198/17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                      Target bcl-2 antisense oligonucleotide #22.
                                                                                                                                                                                                                                                                                                                                                                                                                                        AAX18690;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAX18690 standard; DNA; 20
               WPI; 1999-106077/09
                                                                                                                 01-JUL-1997;
                                                                                                                                                    01-JUL-1998;
                                                                                                                                                                                                                     W09901579-A1
                                                                                                                                                                                                                                                      Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                       10-MAY-1999
                                                Hardee G,
                                                                                  (ISIS-) ISIS PHARM INC
                                                                                                                                                                                     14-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 cccttcctaccgcgt 15
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                                                                                                                                                                                                                                                                                       inflammation; ss.
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15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9; Page 147; 163pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20
                                                Teng C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP; 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                     97US-0886829
                                                                                                                                                    98WO-US13574
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            88.2%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВP
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Pred. No.
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83;
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RESULT
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Best Local
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      Example 2; Page 122; 133pp; English
                              New oligonucleotide compositions used for the non-parenteral delivery of e.g. antisense oligos, ribozymes, peptide nucleic acids, molecular decoys, external guide sequences or aptamers
                                                                                                    WPI;
                                                                                                                                   Teng
                                                                                                                                                                                           21-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                     Cellular proliferation; expression; modulation; antisense;
                                                                                                                                                                                                                                                                                                                                                                                                                                      bcl-2 targetted antisense oligonucleotide SEQ ID 13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                deficiency virus (HIV)), inflammation, in human or animal medicine; (ii) to investigate the role of a gene or gene product in non-human animals; and (iii) to modulate gene expression in cells, tissues or organs. The compositions provide bioavailability of at least 15, preferably 17-35, %. The penetration enhancer improves: (i) transport of the nucleic acid across the mucosa of the alimentary canal and into
                                                                                                                                                                                                                            20-MAY-1999;
                                                                                                                                                                                                                                                          25-NOV-1999
                                                                                                                                                                                                                                                                                       W09960012-A1
                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                ulcerative colitis;
                                                                                                                                                                                                                                                                                                                                                                                               non-parenteral;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAZ49348;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cells; and (ii) increases stability of the nucleic acid. Oral administration avoids the complications and expense of intravenous or other methods of administration. AAX18669 to AAX18799 and AAX18801 represent antisense oligonucleotides which can be used as the nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-MAR-2000
                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAZ49348 standard; DNA; 20 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nucleic acid and at least one penetration enhancer. The compositions used: (i) to treat or prevent any disease or disorder that can be treated with the nucleic acid, e.g. cancer, Alzheimer's disease, beta-thalassemia, malaria, viral infections (including human immune deficiency virus (HTV)) inflammation in human immune.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Composition comprising nucleic acid and penetration enhancer - used particularly for delivering therapeutic antisense oligonucleotides across the gastrointestinal mucosa, provides high bioavailability
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 20 BP; 2 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nucleic acid and at least one
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A pharmaceutical composition has been
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 2; Page 83; 115pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3 cccttcctaccgcgt 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                   ú
                                                                                                    2000-072428/06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cccttcctaccgcgt 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15;
                                                                                                                                                              ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                   Cook
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                               PD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                             98US-0082624
                                                                                                                                                                                                                          99WO-US11394
                                                                                                                                                                                                                                                                                                                                                                             delivery; up
                                                                                                                              Tillman L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         88.2%;
                                                                                                                                                                                                                                                                                                                                                                                            uptake; administration;
                                                                                                                                                                                                                                                                                                                                                                        disease; inflammatory bowel disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 15;
Pred. No.
                                                                                                                              Hardee GE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            developed which comprises a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 20;
83;
                                                                                                                              Ecker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 20;
                                                                                                                            Ŋ,
                                                                                                                                                                                                                                                                                                                                                                                          emulsion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The compositions are
                                                                                                                         Manoharan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                          X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAQ86653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequences AAZ49344-Z49354, AAZ49384-Z49385, AAZ49387-Z49388 and CC AAZ49392-Z4993 represent antisense oligonucleotides designed CC to modulate the rate of cellular proliferation. The invention relates to CC compositions for the non-parenteral delivery of oligonucleotides CC comprising at least one oligonucleotide in an emulsion. Oligonucleotides CC delivered via the compositions of the invention can be used to modulate CC expression of a cellular adhesion protein, modulate a rate of cellular CC proliferation, or have biological activity against eukaryotic pathogens CC e.g., ulcerative colitis, Crohn's disease, inflammatory bowel disease CC or undue cellular proliferation. The compositions can enhance the local CC and systemic uptake and delivery of nucleic acids via non-parenteral CC contes of administration (e.g., via the alimentary canal, skin, eyes, vv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                      line RS11846. The oligonucleotides are phosphodiesters targeted against the translation initiation site (AAQ86650-55) or the 5'-c region (AAQ86656-58) of human bcl-2 pre-mRNAs.
                                                                   Antisense oligonucleotides were tested for their ability to induce programmed cell death (DNA fragmentation) in the human lymphoma ce
                                                                                                                  Example 12; Page 33; 108pp; English.
                                                                                                                                                      Anti-code oligomers which bind to bcl-2 mRNA - for the treatment of human solid tumours. een broach ----
                                                                                                                                                                                                  WPI; 1995-139394/18.
                                                                                                                                                                                                                                Reed
                                                                                                                                                                                                                                                                                          20-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                        30-MAR-1995
                                                                                                                                                                                                                                                                                                                         20-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                   WO9508350-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bcl-2 antisense oligonucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAQ86653;
                                                                                                                                                                                                                                                            (REED/) REED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAQ86653 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          lymphoma; programmed cell death;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 20 BP; 2 A; 10 C; 4 G; 4 T; 0 other;
                                                                                                                                                    human solid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 cccttcctaccgcgt 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 cccttcctaccgcgt 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                               tumours, esp. breast cancer
                                                                                                                                                                                                                                                                                          93US-0124256
                                                                                                                                                                                                                                                                                                                         94WO-US10725
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
1..17
                                                                                                                                                                                                                                                                                                                                                                                                             /note= "3'-5' (antisense) sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     88.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 15;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 21;
83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 20;
                                      5'-cap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
```

0,

Sequence 17 BP;

1 A;

8 C; 4 G; 4 T; 0 other;

Qy

Query Match

Local

Similarity

82.4%; 100.0%;

Score 14; Pred. No.

DB 16; I 2.8e+02;

Length 17;

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밁
                           RESULT 1
                                                                   В
                                                                                  δÃ
ACX
                                                                                                       Query Match
Best Local S
Matches 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bcl-2 antisense oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAQ86655 standard; DNA; 17 BP
                                                                                                                                                                                   Antisense oligonucleotides were tested for their ability to induce programmed cell death (DNA fragmentation) in the human lymphoma cell line RS11846. The oligonucleotides are phosphodiesters targeted against the translation initiation site (AAQ86650-55) or the 5'-cap
                                                                                                                                                                                                                                                                                                        Reed
                                                                                                                                                                                                                                                                                                                                                                                                      W09508350-A
                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            27-SEP-1995
AAV28175;
                  AAV28175 standard;
                                                                                                                                                       Sequence 17 BP; 3 A; 7 C; 4 G; 3 T; 0 other;
                                                                                                                                                                                                                                    Example 12; Page 33; 108pp; English.
                                                                                                                                                                                                                                                        of human solid tumours, esp. breast cancer
                                                                                                                                                                                                                                                                 Anti-code oligomers which bind to bcl-2 mRNA -
                                                                                                                                                                                                                                                                                     WPI; 1995-139394/18
                                                                                                                                                                                                                                                                                                                          (REED/) REED J C.
                                                                                                                                                                                                                                                                                                                                              20-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                20-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                    30-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lymphoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Anticode oligomer;
                                                                                                                                                                           region (AAQ86656-58) of human bcl-2 pre-mRNAs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 ccttcctaccgcgt 17
                                     12
                                                                   4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ccttcctaccgcgt 14
                                                                   gacccttcctaccg 17
                                                                                    gaccettectaceg 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14;
                                                                                                         14;
                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           programmed cell death;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                              93US-0124256
                                                                                                                                                                                                                                                                                                                                                                 94WO-US10725
                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers 1..17
                                                                                                                                                                                                                                                                                                                                                                                                                          /note= "3'-5'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antisense oligonucleotide; bcl-2; cancer; therapy;
                  DNA; 17
                                                                                                      82.4%; 50
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                   Score 14;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                          (antisense) sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              88.
                                                                                                                  DB 16; 1
2.8e+02;
                                                                                                                                                                                                                                                                   for the treatment
                                                                                                                            Length 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                          0;
                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                           0
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RESULT AAV28177

13

AAV28177 standard; DNA; 17

ΒP

Purification;

affinity purification; antisense;

oligonucleotide; matrix; affinity unit;

bc1-2;

Antisense oligonucleotide to bcl-2 mRNA.

08-OCT-1998 AAV28177;

(first entry)

Synthetic

WO9827425-A1

밁 Q

Н

14

4 ccttcctaccgcgt 17

0;

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Query Match
Best Local
 Matches
                                                                                                            AAV28155-268 represent oligonucleotides which can be purified using the method of the invention. The specification describes a matrix that comprises a support and an affinity unit that specifically and reversibly binds a target oligonucleotide, and comprises a sequence of bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative diseases, for treating a non-pathogen, non-hyperproliferative disease, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic
                                                                                                                                                                                                                                                                                             Matrix for selective separation of oligo:nucleotide - useful for, e.g. large scale purification of anti-sense agents from their deletion derivatives formed during synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Purification; oligonuca affinity purification;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Antisense oligonucleotide to bcl-2 mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                        Chen D,
                                                                                                                                                                                                                                                                                                                                                                                                                 (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                               19-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   W09827425-A1
                                                                                                                                                                                                                                                                                                                                                           WPI; 1998-362922/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-JUN-1998
                                                                     Sequence 17
                                                                                                                                                                                                                                                                      Disclosure; Page 81; 183pp; English.
                                                                                                pathogen, retrovirus or other viruses.
             Local Similarity
14;
                                                                                                                                                                                                                                                                                                                                                                                        Cole DL,
                                                                     BP; 1 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     oligonucleotide; matrix; affinity unit;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 96US-0769951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            97WO-US23284.
                                                                                                                                                                                                                                                                                                                                                                                         Srivatsa
               82.4%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            antisense; bcl-2;
                                                                                                                                                                                                                                                                                                                                                                                         GS;
   0;
                Score 14;
Pred. No.
    Mismatches
   DB 19; I
. 2.8e+02;
ches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SS
                              Length 17;
    0;
    Gaps
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AAX23687
ID AAXX
XX
AC AAXX
AC AAXX
XX Delt
XX Delt
XX Delt
XX Prol
KW Prol
KW Prol
KW HIV
OS Syni
XX Syni
XX O1---
PR 01---
XX X
PR (IS
XX PR
PX (IS
XX PT
PX New
PT Oli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
 New compositions comprising sensor arrays made up of unique probe oligonucleotides - useful for characterizing a sample of target
                                                                                                                                                                         01-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAV28155-268 represent oligonucleotides which can be purified using the method of the invention. The specification describes a matrix that comprises a support and an affinity unit that specifically and reversibly binds a target oligonucleotide, and comprises a sequence of bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative diseases, for treating a non-pathogen, non-hyperproliferative disease, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic pathogen, retrovirus or other viruses.
                                                    WPI; 1999-205198/17.
                                                                                                             (ISIS-) ISIS PHARM INC
                                                                                                                                           02-SEP-1997;
                                                                                                                                                                                                     11-MAR-1999
                                                                                                                                                                                                                                  W09911820-A1
                                                                                                                                                                                                                                                                 Synthetic
                                                                                                                                                                                                                                                                                                                 Deletion sequence oligonucleotide; sensor array; eukaryotic pathogen; probe; cellular adhesion modulator; cellular proliferation modulator;
                                                                                                                                                                                                                                                                                                                                                                   Deletion sequence oligonucleotide 140.
                                                                                                                                                                                                                                                                                          HIV; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                  AAX23687;
                                                                                                                                                                                                                                                                                                                                                                                                   18-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matrix for selective separation of oligo:nucleotide - useful for, e.g. large scale purification of anti-sense agents from their deletion derivatives formed during synthesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAX23687 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 17 BP; 3 A; 7 C; 4 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Page 83; 183pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-DEC-1997;
                                                                                                                                                                                                                                                                                                  uman retrovirus; human immunodeficiency virus; non-human retrovirus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 gaccettectaccg 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gacccttcctaccg 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cole DL, Srivatsa GS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                           97us-0923771
                                                                                                                                                                         98WO-US18084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      96US-0769951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97WO-US23284.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 14;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 19; [
2.8e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 17
target
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
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B Qy

0;

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proliferation, and being active against a eukaryotic pathogen, a human retrovirus, a human immunodeficiency virus (HIV), or a non-human retrovirus, including influenza virus, Epstein-Barr virus, Respiratory Syncytial virus or cytomegalovirus (CMV). The compositions enable characterization of deletion sequence oligonucleotides having related, but different nucleobase sequences, and quantification of different species of deletion sequence ("target") oligonucleotides in a mixture. Also, if the specificity of the oligonucleotide's nucleobase sequence for its reverse complement is not modified, the method may be performed
                                                                                                                                                                                                                                                                                                                                                 oligonuclectides. The compositions form a method for characterizing a sample of target deletion oligonuclectides which are labelled and hybridize with the probe oligonucleotides of the sensor arrays. Such oligonucleotides and their targets are represented in AAX23548-X23709. Oligonucleotides characterized by the method form pharmaceutical compositions that are useful for modulating cellular adhesion or proliferation, and being active against a to be received.
Sequence 17 BP; 1 A; 8 C; 4 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This invention describes a novel composition comprising a number of sensor arrays, where each array comprises a unique probe oligonucleotide, which is the reverse complement of part of a unique target oligonucleotide present in a mixture of target deletion sequence
                                                              using oligodeoxynucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           oligonucleotides. The compositions form a method sample of target deletion oligonucleotides which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 9; Page 150; 163pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       deletion oligonucleotides
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AAX23689
                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                               Query Match
Best Local
Deletion sequence oligonucleotide; sensor array; eukaryotic pathogen; probe; cellular adhesion modulator; cellular proliferation modulator;
                                                 Deletion sequence
                                                                                                                                    AAX23689 standard; DNA; 17 BP
                                                                            18-JUN-1999
                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                  15
                                                                                                                                                                                                            Н
                                                                                                                                                                                                                                  4 ccttcctaccgcgt 17
                                                                                                                                                                                                         ccttcctaccgcgt 14
                                                                                                                                                                                                                                                               Conservative
                                                                           (first entry)
                                                oligonucleotide 142.
                                                                                                                                                                                                                                                          82...;
100.08; F1
                                                                                                                                                                                                                                                                        Score 14; Pred. No.
                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                            DB 20; I
. 2.8e+02;
ches 0;
                                                                                                                                                                                                                                                                                       Length 17;
                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                          Gaps
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HIV; primer; Synthetic human retrovirus; human immunodeficiency virus; non-human retrovirus;

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WO9911820-A1
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01-SEP-1998; 11-MAR-1999 98WO-US18084.

(ISIS-) ISIS PHARM INC 02-SEP-1997; 97US-0923771

Chen D, Srivatsa GS;

WPI; 1999-205198/17

deletion oligonucleotides New compositions comprising sensor arrays made up of unique probe oligonuclectides - useful for characterizing a sample of target

Example 9; Page 151; 163pp; English

```
CC This invention describes a novel composition comprising a number of CC sensor arrays, where each array comprises a unique probe CC oligonucleotide, which is the reverse complement of part of a unique CC target oligonucleotide present in a mixture of target deletion sequence CC oligonucleotides. The compositions form a method for characterizing a CC sample of target deletion oligonucleotides which are labelled and CC hybridize with the probe oligonucleotides of the sensor arrays. Such CC oligonucleotides and their targets are represented in AAX23548-X23709. CC oligonucleotides characterized by the method form pharmaceutical CC compositions that are useful for modulating cellular adhesion or CC proliferation, and being active against a eukaryotic pathogen, a human cc retrovirus, a human immunodeficiency virus (HIV), or a non-human CC retrovirus, including influenza virus, Epstein-Barr virus, Respiratory CC Syncytial Virus or cytomegalovirus (CMV). The compositions enable CC characterization of deletion sequence, oligonucleotides having related, but different nucleobase sequences, and quantification of different CC but different sequence ("target") oligonucleotides in a mixture. Species of deletion sequence ("target") oligonucleotides in a mixture. CC wising oligodeoxynucleotides.

XX Sequence 17 BP; 3 A; 7 C; 4 G; 3 T; 0 other;

Query Match B2.4%; Score 14; DB 20; Length 17; Best Local Similarity 100.0%; Pred. No. 2.8e+02; Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Search completed: June 28, 2002, 22:40:15 Job time: 8091 sec

망양

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Result
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum DB seq length: 0 Maximum DB seq length: 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence:
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Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            No.
                    on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score
                 Issued_Patents_NA:*

1: /cgn2_6/ptodata/1,

2: /cgn2_6/ptodata/1,

3: /cgn2_6/ptodata/1,

4: /cgn2_6/ptodata/1,

5: /cgn2_6/ptodata/1,

6: /cgn2_6/ptodata/1,
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Match
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Gapop 10.0 , Gapext 1.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-709-170A-12
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Copyright (c) 1993 - 2000 Compugen Ltd.
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/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/B_COMB.seq:*
/cgn2_6/ptodata/1/ina/BCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/backfiles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                 US-08-465-485A-12
US-09-080-285-13
US-08-465-485A-13
US-08-465-485A-13
US-09-080-285-13
US-09-080-285-13
US-09-080-285-13
US-09-080-285-13
US-08-477-527A-44
US-08-481-710-44
PCT-US96-09537-44
US-08-384-708A-143
US-08-384-708A-143
US-08-87-421-147
US-08-887-421-147
US-08-870-930-75
US-08-870-930-75
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US-08-870-930-17
US-08-870-930-17
US-08-870-930-17
US-08-375-850-56
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUMMARIES
Sequence 12, Appl Sequence 11, Appl Sequence 11, Appl Sequence 11, Appl Sequence 11, Appl Sequence 11, Appl Sequence 14, Appl Sequence 44, Appl Sequence 147, Appl Sequence 147, Appl Sequence 147, Appl Sequence 147, Appl Sequence 147, Appl Sequence 74, Appl Sequence 76, Appl Sequence 77, Appl Sequence 77, Appl Sequence 78, Appl Sequence 78, Appl Sequence 51, Appl Sequence 52, Appl Sequence 51, Appl Sequence 52, Appl Sequence 51, Appl Sequence 52, Appl Sequence 51, Appl Sequence 52, Appl Sequence 53, Appl Sequence 54, Appl Sequence 54, Appl Sequence 56, Appl Sequence 56, Appl Sequence 56, Appl Sequence 57, Appl Sequence 57, Appl Sequence 58, Appl Sequence 58, Appl Sequence 58, Appl Sequence 58, Appl Sequence 58, Appl Sequence 58, Appl Sequence 28, Appl Sequence 28, Appl
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J'1 1 3-465-485A-12 Juence 12, Appli Juence 12, Appli Eent No. 581066 ENERAL INFORMATI APPLICANT: Ree TITLE OF INVENT NUMBER OF SEQUE CORRESSORE: PADDRESSEE: PATTE: Virgi COUNTRY: U.S ZIP: 22202 COMPUTER READAB MEDIUM TYPE: COMPUTER: IB OPERATING SYS SOFTWARE: PAPLICATION NI FILING DATE: CLASSIFICATION NI FILING DATE: FILING DATE: FILING DATE: CLASSIFICATION NI FILING TON APPLICATION NI FILING DATE: CLASSIFICATION NI FILING DATE: CHASSIFICATION NI FILING COMPUTER NI FILING NI FILING NI FILING NI FILING NI FILING NI FILING NI FILING NI FILING NI FILING NI FILING NI FILING NI FILING NI FILING NI FILING NI FILING NI FILING NI FILING NI FILING NI		11.2 11.2 11.2 11.2 11.2 11.2 11.1 11 11 11 11 11 11 11 11 11 11 11 1
HET 1  8-465-485A-12  9-465-485A-12  19uence 12, Application US/0846  ENERAL INFORMATION:  APPLICANT: Reed, John APPLICANT: Reed, John APPLICANT: Reed, John APPLICANT: Reed, John APPLICANT: Reed, John APPLICANT: Reed, John APPLICANT: Repulation CORRESSE: OBLOW, SPIVAK, ADDRESSEE: OBLOW, SPIVAK, ADDRESSEE: OBLOW, SPIVAK, ADDRESSEE: OLOW, SPIVAK, COMPUTER: IBM PC compatibl OPERATING SYSTEM: PC-DOS/M SOFTWARE: PATENTON DATA: APPLICATION NUMBER: US/08/ FILING DATE: O5-UN-1995 CLASSIFICATION NUMBER: US/08/ FILING DATE: O5-UN-1995 CLASSIFICATION NUMBER: US/08/ FILING DATE: 21-FEB-1992 APPLICATION NUMBER: US/07/ FILING DATE: 21-FEB-1993 PRIOR APPLICATION NUMBER: US/07/ FILING DATE: TO-DEC-1988 ATTORNEY, AGENT INFORMATION TELEPHONE: (408) 436-2075 TELE		66666666666666666666666666666666666666
		33444433443545444433444444444444444444
55485A On of Davis Davis 1124,25 124,25 288,65	ALI	US-08-3 US-08-4 US-08-4 US-08-4 US-08-8 US-08-8 US-08-8 US-08-8 US-08-8 US-08-8 US-08-8 US-08-8 US-08-8 US-09-11 US-09-13 US-09-3 US-08-7 US-08-7
Gene MAIER Suite	ALIGNMENTS	318-193-29 +236-311-14 +457-918-14 +484-192-154 +484-578-138 +465-485A-10 -0285-10 -870-930-84 -135-639-9
Expression 6 NEUSTADT 400		מי
DI, n		Sequence 2 Sequence 1 Sequence 1 Patent No. Sequence 1 Sequence 1 Sequence 5 Sequence 8 Sequence 7 Sequence 9 Sequence 2 Sequence 2
		29, Appl 14, Appl 14, Appl 15, Appl 15, Appl 10, Appl 10, Appl 58, Appl 7, Appl 9, Appl 9, Appl 10, Appl 11, Appl 26, Appl 26, Appl 26, Appl 26, Appl 26, Appl

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                              QУ
                                                                                                                                            ; ANTI-SENSE: US-09-080-285-12
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                                                                Best Local Similarity Matches 17; Conserv
                                                                                 Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                            TELEFAX: (408) 436-207
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US 08/
FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
APPLICATION UNUMBER: US 07/
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/465,485
FILING DATE: 05-JUN-1995
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: 3335-070-55 CONT
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
                                                                                                                                                                             MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CITY: Arlington
STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY:
                                                                                                                                                                                              TOPOLOGY: li
                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US OF FILING DATE: 22-DEC-1988
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                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER:
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                gaccetteetacegegt 17
GACCCTTCCTACCGCGT 17
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                                                                                                                                                                                                                             nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Reed, John
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                                                                 Conservative
                                                                                                                                                                                              linear
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                                                                                                                                                                                                            single
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                                                                                 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US 07/840,716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US 08/124,256
                                                                                                                                                                                                                                                                                                                                                                                                                          US 07/288,692
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                                                                                 Score 17; DB 3; Length 17; Pred. No. 0.71;
                                                                   Mismatches
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                                                                     Indels
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                                                                   Gaps
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US-08-465-485A-11
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                                                                                                                                     US-08-465-485A-13
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                                                                                                                                                        RESULT
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                                                                               Sequence 13, Application US/08465485A Patent No. 5831066 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                            Best Local Similarity
                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: (408) 436-2075 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Reed, John TITLE OF INVENTION: R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0'
FILING DATE: 21-FEB-1992
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APPLICATION NUMBER: US 08/124,256
FILING DATE: 20-SEP-1993
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                TITLE OF INVENTION: Regulation of bc1-2 Gene Expression NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
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                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE:
                                                                      APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: nucleic acid
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Y: U.S.A.
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1755 S. Jefferson Davis Hwy., Suite 400
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                                                                    Reed, John
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OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT
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                                                                                                                                                                                                                                                                                          82.4%; Score 14; DB 2; 100.0%; Pred. No. 31;
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                               APPLICANT: Reed, John
TITLE OF INVENTION: Regulation of bcl-2 Gene Expression
NUMBER OF SEQUENCES: 29
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ANTI-SENSE: YES
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LENGTH: 17 base pairs
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FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
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CLASSIFICATION: 514
PRIOR APPLICATION DATA:
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CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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                                                                                                                        COUNTRY:
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REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET_NUMBER: 3335-070-55 CONT
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7: U.S.A.
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22-DEC-1988
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                  Version #1.25
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US-09-080-285-13
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Patent NO. 6040181
GENERAL INFORMATION:
APPLICANT: Reed, John
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Best Local
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INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
TYPE: nucleic acid
       APPLICATION NUMBER: US 08/400, TURNING DATE: 05-JUN-1995
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 08/124,256
                                                                                                               CLASSIFICATION:
CRASSIFICATION DATA:
PRIOR APPLICATION NUMBER: US 08/465,485
                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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CITY: Arlington
CTATE: Virginia
TATE: TS.A.
                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/080,285
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REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408),436-2070
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APPLICATION NUMBER: US 0
FILING DATE: 22-DEC-1988
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APPLICATION NUMBER:
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20-SEP-1993
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 3;
31;
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/840,716
FILING DATE: 21-FEB-1992

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REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 3355
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
INFORMATION FOR SEQ ID NO: 13:
SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 17, App. ... 882768
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FILING DATE:
ATTORNEY/AGENT INFORMATION:
ATMAME: Feder, Scott B
REGISTRATION NUMBER: 33,129
REFERENCE/DOCKET NUMBER: 5262
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-372-7842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: Fitch, Even, Tabin & Flannery
STREET: 135 S. LaSalle St.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 21-FEB-PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Koutz, Patricia
APPLICANT: Barr, Kathryn A
APPLICANT: Hopkins, Sharon A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE:
ANTI-SENSE: Y
                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                           CLASSIFICATION: 435 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: Production of Bacillus Entomotoxins in TITLE OF INVENTION: Methylotrophic Yeast
                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME:
                                                                                                                                                                                                                                                                                                                     COUNTRY: U.S.A. ZIP: 60603-4277
                                                                                                                                                                                                                                                                                                                                                                      STREET: 135 S. CITY: Chicago
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                                                                                                                        APPLICATION NUMBER:
                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                              APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                          STATE:
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                                                                                                                                                                                                                                                                                                                                                      Illinois
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Prevatt, William D
Thill, Gregory P
Davis, Geneva R
Koutz, Patricia
Barr, Kathryn A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
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100.0%; Pred. No.
tive 0; Mismatcl
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: 312-372-7848 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                               TELEFAX: (303) 793-343
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: SUMEDHA JA APPLICANT: LARRY GOLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS:
                                                          REFERENCE/DOCKET NUMBER: NETELECOMMUNICATION INFORMATION: TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/931,4
FILING DATE: 17-AUGUST-1992
                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE: 10-JUNE
                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
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                 SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                                         FILING DATE: 11-JUNE-1990 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
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CITY: I
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Local Similarity 92.9%;
nes 13; Conservation
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TOPOLOGY: unk
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                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: FILING DATE: 7-JUN
                                                                                                                                                                                                                                                      APPLICATION NUMBER: FILING DATE: 21-003
                                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDIUM TYPE: Diskette, 3.50 inch, 1.44 Mb storage COMPUTER: IBM compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                        APPLICATION NUMBER: FILING DATE: 8-SEP
                                                                                                           REGISTRATION NUMBER:
                                                                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: WordPerfect 6.0
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   LENGTH:
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                                                                                                                             Diane H. McClearn
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              E: Swanson and Bratschun, L.L.C.
8400 East Prentice Avenue, Suite #200
67 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NIKOS PAGRATIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUMEDHA JAYASENA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DIANE TASSET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           unknown
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                                                                                                                                                            11-JUNE-1990
                                                                                                                                                                                                          8-SEPTEMBER-1993
                                                                                                                                                                                                                                                        21-OCTOBER-1992
                                                                                                                                                                                                                                                                                                                                                   10-JUNE-1991
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                                                793-3433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OF CYTOKINES: 258
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                                                                                                                                                                                                                                                                                                                    07/931,473
                                                                                                                                                                                                                                                                                                                                                                  07/714,131
                                                                                                                                                                         07/536,428
                                                                                                                                                                                                                                                                        07/964,624
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                                                                                                           33,960
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                                  44:
                                                                                                NEX41-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 40;
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US-08-481-710-44/c; Sequence 44, Application US/08481710; Patent No. 6028186
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Best Local Similarity
                                                              TELEFAX: (303) 793-3433 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                            SEQUENCE CHARACTERISTICS:
LENGTH: 67 base pairs
                                                                                         REFERENCE/DOCKET NUMBER: NEX41-2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                       FILING DATE: 8-SEPTEMBER-1993
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 07/931, FILING DATE: 17-AUGUST-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
FILING DATE: 10-JUNE-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: WordPerfect 6.0 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM: MEDIUM TYPE: Diskette, 3.50 inch, 1.44 Mb storage
                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: HIGH AFFINITY NUCLEIC ACID LIGANDS TITLE OF INVENTION: OF CYTOKINES NUMBER OF SEQUENCES: 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: SUMEDHA JAY
APPLICANT: LARRY GOLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: DIANE TASSET
APPLICANT: NIKOS PAGRATIS
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                TYPE: n
                                                                                                                                         REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 07/964,6; FILING DATE: 21-OCTOBER-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/08 FILING DATE: 7-JUNE-1995
                                                                                                                                                              NAME: Diane
                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE:
   STRANDEDNESS:
                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                        APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION:
OTHER INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 gacccttcctaccgcgt 17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Denver
Colorado
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E: Swanson and Bratschun, L.L.C.
8400 East Prentice Avenue, Suite
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USA
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                                                                                                                                                                                       11-JUNE-1990
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single
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82.4%;
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                                                                                                                                                                                                                                                        08/117,991
                                                                                                                                                                                                                                                                                                       07/964,624
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                                                                                                                                        33,960
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Pred. No. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Suite #200
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3.4e+02;
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CTHER INFORMATION:
COTHER INFORMATION:
PCT-US96-09537-44
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Best Local
                                                                                                                                                       TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 793-3333
TELEPAX: (303) 793-3433
INFORMATION FOR SEQ ID NO: 44:
                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: PCT/USGG ETLING DATE:
                                                          SEQUENCE CHARACTERISTICS:
LENGTH: 67 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: RNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
APPLICANT:
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APPLICANT:
                                                                                                                                                                                                                                                             FILING DATE: 07-JUNE-1999 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 08/47
FILING DATE: 07-JUNE-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: Swanson a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: HIGH AFFINITY NUCLEIC ACID LIGANDS OF TITLE OF INVENTION: CYTOKINES
                                               FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
OTHER INFORMATION:
OTHER INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                                              NAME: Barry J. Swanson
REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NE
                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 08/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER:
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14; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Colorado
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LARRY GOLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DIANE TASSET
NIKOS PAGRATIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Diskette,
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                All pyrimidines are 2'-NH2 modified
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3.50 inch, 1.44 Mb storage
                                                                                                                                                                                                                   NEX41/PCT
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Pred. No. 3.4e+02;
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Query Match Best Local Similarity

71.8%; 82.4%;

Score 12.2; DB 5; Pred. No. 3.4e+02;

Length 67;

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US-08-384-708A-143/c
; Sequence 143, Application US/08384708A
; Patent No. 5639868
                                                                                                                                           ; OTHER INFORMATION: US-08-384-708A-143
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                                                             Best Local Similarity
Matches 13; Conserv
                                                                                           Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NERAL INFORMATION:
APPLICANT: Gold, Larry
APPLICANT: Janjic, Nebojsa
TITLE OF INVENTION: High-Affinity RNA Ligands of Basic
TITLE OF INVENTION: Fibroblast Growth Factors
TITLE OF SECUENCES: 227
                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 30 base pairs
                                                                                                                                                                                                                                                                                                                                                 NAME: BAITY J. SWANSON
REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NE
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: WordPerfect 5.1 CURRENT APPLICATION DATA:
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                                                                                                                                                                           FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 11-JUNE-1990
ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 07/71
FILING DATE: 10-JUNE-1991
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FILING DATE: 10-FEBRUARY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/08/384 FILING DATE: 02-FEBRUARY-1995
                                                                                                                                                                                                                                     LENGTH: 30 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE:
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                                                                                                                                                                                                                        TOPOLOGY: linear
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                2 accettectacegeg 16
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ACCCATCCTACCCCG 13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USA
                                                                                                                                                                                                                                                                                                                       (303)
                                                               Conservative
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                                                                                                                                                                                                                                                                                                                     (303) 793-3333
303) 793-3433
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                                                                                                                                                                                                                                                                                                                                                                                                                                   UMBER: 07/536,428
11-JUNE-1990
                                                                               69.4%;
86.7%;
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                                                                                                                                                                                                                                                                                                         143:
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                                                                               Score 11.8; DB 1; Pred. No. 5.2e+02;
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                                                                Mismatches
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RESULT 12

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US-08-384-708A-147/c
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                                                                                                                                         RESULT
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                                                                                   Sequence 143, Application US/08687421 Patent No. 6177557
                                                                                                                                                                                                                                                           Best Local Similarity Matches 13; Conserv
                                                                                                                                                                                                                                                                                              Query Match
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                                                                      GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Gold, Larry
APPLICANT: Janjic, Nebojsa
TITLE OF INVENTION: High-A.
TITLE OF INVENTION: Fibrob
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: WordPerfect 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/384,708A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
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ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER:
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PRIOR APPLICATION DATA:
APPLICANT: Gold, Larry
APPLICANT: Janjic, Nebojsa
APPLICANT: Tasset, Diane
TITLE OF INVENTION: HIGH-AFFINITY LIGANDS OF BASIC
                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
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ZIP: 801
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SOFTWARE: WordPer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Barry J. Swanson REGISTRATION NUMBER: 33, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 07/71 FILING DATE: 10-JUNE-1991
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                                                                                                                                                                                            27 ACCCATCCTACCCCG 13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                           2 accettectacegeg 16
                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              80113
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 USA
                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IBM compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Swanson & Bratschun, L.L.C.
00 E. Prentice Avenue, Suite 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (303)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Diskette, 3.5 inch, 1.44 MG storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-FEBRUARY-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 UMBER: 07/536,428
11-JUNE-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      High-Affinity RNA Ligands of Basic Fibroblast Growth Factors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MS-DOS
                                                                                                                                                                                                                                                                               69.4%;
86.7%;
                                                                                                                                                                                                                                                                                                                                                                     All U's are 2'-NH2 uracil
                                                                                                                                                                                                                                                                                                                                                                                                       All C's are 2'-NH2 cytosine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        227
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                33,215
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                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                              Score 11.8;
Pred. No. 5.
                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                 ; DB 1;
5.2e+02;
hes 2;
                                                                                                                                                                                                                                                                                                  Length 30;
                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                   Gaps
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RESULT 14
US-08-687-421-147/c
                                                                                                                                                                  В
                                                                                                                                                                                                QY
                                                                                                                                                                                                                                                                                                                             ; CTHER INFORMATION: All U's are 2'-NH2 uracil US-08-687-421-143
Sequence 147, Application US/08687421
Patent No. 6177557
GENERAL INFORMATION:
APPLICANT: Gold, Larry
APPLICANT: Janjic, Nebojsa
                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 30 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (303) 793-34:
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Diskette, 3.5 inch, 1.44 MB storage
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION: TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA: APPLICATION NUMBER:
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PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 07/71
FILING DATE: 10-JUNE-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 07/973,333 FILING DATE: 11-NOVEMBER-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/687,421 FILING DATE: 08-MAY-1996 CLASSIFICATION: 435
                                                                                                                                                                27 ACCCATCCTACCCCG 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Barry J. Swans REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 08/195,005 FILING DATE: 10-FEBRUARY-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 11-JUNE-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE:
                                                                                                                                                                                                2 accettectacegeg 16
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: Colorado
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8400 E. Prentice Avenue, Suite 200
                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Swanson & Bratschun, L.L.C.
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28-MARCH-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Swanson
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                                                                                                                                                                                                                                                      69.4%;
86.7%;
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                                                                                                                                                                                                                                                                                                                                                                                All C's are 2'-NH2 cytosine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FIBROBLAST GROWTH FACTOR AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07/536,428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07/714,131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 33,215
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                                                                                                                                                                                                                                                      Score 11.8; DB 4; Length 30; Pred. No. 5.2e+02;
                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                   Gaps
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RESULT 15
US-08-870-930-56/c
; Sequence 56, Application US/08870930
; Patent No. 6168778
; GENERAL INFORMATION:
                                                                                                                    В
                                                                                                                                                                    Query Match
Best Local Similarity
Watches 13; Conserva
                                                                                                                                                                                                                                                                     ; OTHER INFORMATION: US-08-687-421-147
                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: (303) 793-34 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 11-JUNE-1990
ATTORNEY/AGENT INFORMATION:
NAME: BAILY J. SWANSON
REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NEXO
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: ITITLE OF INVENTION: ITITLE OF INVENTION: 'UNBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                 FEATURE:
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 10-JUNE PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
FILING DATE: 10-JUNE-1991
                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: WordPerfect 6.0 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08,
                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 22-APRIL-1993 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
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APPLICATION NUMBER: 08/195,005
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 07/973,33 FILING DATE: 11-NOVEMBER-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 08/219 FILING DATE: 28-MARCH-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: Swans
STREET: 8400 E.
CITY: Englewood
                                                                                                                                                                                                                                                                                                                                                                                TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM CONTROL OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS: signopology: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION:
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                                                                                                                    27 ACCCATCCTACCCCG
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                                                                                                                                      2 accettectacegeg 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tasset, Diane
                                                                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                                                                                                                                       single
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                                                                                                                                                                                                   69.4%;
86.7%;
                                                                                                                                                                                                                                                                                       All U's are 2'-NH2 uracil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MS-DOS
                                                                                                                                                                                                                                                                                                                        All C's are 2'-NH2 cytosine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08/219,012
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5
                                                                                                                                                                                                 Score 11.8; DB 4;
Pred. No. 5.2e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   inch, 1.44 MB storage
                                                                                                                                                                                       Mismatches
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                                                                                                                                                                                                                     4
                                                                                                                                                                                                                     Length 30;
                                                                                                                                                                                       Indels
                                                                                                                                                                                       0;
                                                                                                                                                                                     Gaps
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TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: RNA
FEATURE:
OTHER INFORMATION: All pyrimidines are 2'-fluoro
US-08-870-930-56
Search completed: June 28, 2002, 22:16:49 Job time: 8275 sec
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                                                                                                                                                           Qy
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COMPOUTER: IBM COMPATIBLE
COMPOUTER: MS-DOS
SOPTMARE: WordPerfect 8.0

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/870,930
FILING DATE: 6 JUNE 1997
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
NAME: Barry J. SWANSON
REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NEX61
TELECOMMUNICATION INFORMATION:
TELEPHONE: (303) 793-3333
INFORMATION FOR SEQ ID NO: 56:
SEQUENCE CHARACTERISTICS:
LENGTH: 28
TYPE: DISTRACT
                                                                                                                                                                                                       Query Match 67.1%;
Best Local Similarity 92.3%;
Matches 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: NEBOJSA JANJIC, LARRY GOLD, PAUL G. SCHMIDT, CHANDRA VARGEESE, MICHAEL TITLE OF INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR (VEGF)
TITLE OF INVENTION: NUCLEIC ACID LIGAND COMPLEXES
NUMBER OF SEQUENCES: 88
CORRESPONDENCE ADDRESS:
CORRESPE: Swanson and Bratschun, L.L.C.
STREET: 8400 East Prentice Avenue, Suite #200
CITY: Delver
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM: MEDIUM TYPE: Diskette, 3.5 inch, 1.4 Mb storage
                                                                                                               5 cttcctaccgcgt 17
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17 CTTCCTACCGCAT 5
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ZIP: 80111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Colorado
                                                                                                                                                                                                           Score 11.4; DB 4; Length 28; Pred. No. 8.5e+02; 0; Mismatches 1; Indels
                                                                                                                                                                                                           0;
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Title:
Perfect score:
Sequence:
Result
No.
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             on:
                                                   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              seq length: 0 seq length: 75
Query
Match Length DB
                                                                                                 118:
120:
220:
221:
221:
223:
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112
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115
116
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17
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Copyright (c) 1993 - 2000 Compugen Ltd.
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gb_htg:*
gb_in:*
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gb_ov:*
gb_pat:*
gb_ph:*
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em_htg_inv:*
em_htg_other:*
em_htgo_inv:*
                                                                                                                                                             em_fun: *
em_in: *
em_in: *
em_mu: *
em_on: *
em_or: *
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Sequence 13 from patent US 5831066.
AR052615
AR052615.1 GI:5975979
                                                                             Regulation of bcl-2 gene expression Patent: US 5831066-A 13 03-NOV-1998; Location/Qualifiers
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Sequence 12
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V-gamma-D-delta-U-delta region, clone gd2.2.
M28772
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                 /protein_id="AAA36693.1"
/db_xref="G1:553708"
/translation="CATMENPLPTARGMFCTDKLIFGK"
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/db_xref="taxon:9606"
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T-cell receptor; delta chain.
Homo sapiens intestine cDNA to mRNA.
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                                                                                                                                                    UNIV EDINBURGH (GB)
                                                                                                                                                                Patent: WO 9612810-A 18 02-MAY-1996;
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Lathe, R., Rose, K.A. and Stapleton, G.
HIPPOCAMPUS-ASSOCIATED PROTEINS, DNA
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Mammalia; Eutheria; Primates;
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/db_xref="taxon:9606"
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Holtmeier, W., Chowers, Y., Lumeng, A., Morzycka-Wroblewska, E. and
Kagnoff, M.F.
The delta T cell receptor repertoire in human colon and peripheral
blood is oligoclonal irrespective of V region usage
J. Clin. Invest. 96 (2), 1108-1117 (1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HUMTCCVJ32
47 bp mRNA linear PRI 19-AUG-1995 Homo sapiens (C.2.PL252) rearranged T-cell receptor delta chain (TCRDV2J1) mRNA, partial V-region.
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Lathe, R., Rose, K. Andrew and Stapleton, G.
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/note="This CDS feature is included to show the
                 /gene="TCRDV2J1"
                                                                                 /standard_name="(V delta-2/ J delta-1)"
/note="putative"
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/clone="C.2.PL252"
                                                  /gene="TCRDV2J1"
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Nucleic acids containing single nucleotide polymorphisms and methods of use thereof
Patent: WO 0148245-A 623 05-JUL-2001;
                                                                                                                                                                                                                                   Homo sapiens
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Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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/db_xref="taxon:9606"
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RESULT 10
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Best Local
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Probes, methods and kits for detection and typing of Helicobacter pylori nucleic acids in biological samples
                                                                                   Sequence 17 from patent US AR050327
  1 (bases 1 to 40)
Sreekrishna, K., Pr
                                      Unknown
                                                 Unknown.
                                                                         AR050327.1
                                                                                                         AR050327
                                                                                                                                                                                                                                                                                                                                              Probes, methods and kits for detection and pylori nucleic acids in biological samples Patent: JP 2001502536-A 14 27-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BD009422.1 GI:18637795
JP 2001502536-A/14.
                          Unclassified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INNOGENETICS NV, DDL BV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Quint, W. and Doorn, L.J.V.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            unclassified
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      unidentified.
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                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                    Key
                                                                                                                                                                                                                                                                                                                                                                                                    10-OCT-1997 JP 1998518004
16-OCT-1996 EP 96870131.8
WILHELMUS QUINT, LEENDERT JAN VAN DOORN
                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                           C12Q1/68,C07K14/205,C12N15/11
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unidentified
JP 2001502536-A/14
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/db_xref="taxon:32644"
8 c 3 g
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/db_xref="taxon:9606"
6 c 3 g (
                                                                         GI:5973052
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81.2%;
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92.9%;
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Prevatt, W.D., Thill, G.P., Davis, G.R., Koutz, P.,
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                                                                                                                                                                                                                         Score 12.4; DB 6;
Pred. No. 1.8e+04;
                                                                                                                                                                                                                                                                                                                                             /organism='Unidentified'.
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Pred. No. 1.8e+04;
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RESULT 13
HUMTCRAD2
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94275371
Kagnoff, M.F. The delta T
                                                                                                                                                                                              HUMTCRAD2 59 bp mRNA linear Homo sapiens (C.A.LRO2) rearranged T-cell receptor (TCRAV14S2-TCRDJ1) mRNA, partial V-region.
                                                                                                                                                                                                                                                                                                                                                                 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 53)

Chowers, Y., Holtmeier, W., Harwood, J., Morzycka-Wroblewska, E.
                         1 (bases 1 to 59)
Holtmeier, W., Chowers, Y., Lumeng, A., Morzycka-Wroblewska, E.
                                                                                                                                CDR3 region; T-cell receptor alpha-chain; T-cell receptor antigen recognition site; junctional region; rearranged; v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             L32463.1 GI:497533
T-cell receptor; delta chain.
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L32463
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                                                                                         Homo sapiens
                                                                                                    Homo sapiens (clone: C.A.LR02) colon cDNA to mRNA.
                                                                                                                         region.
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                                                                         Eukaryota; Metazoa; Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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                                                          Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
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delta T cell receptor repertoire in human colon and peripheral
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/db_xref="taxon:9606"
/tissue_type="intestine"
15 c 18 g 13
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8 c 10 g
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82.4%;
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Pred. No. 2.2e+04;
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No. 1.7e+04;
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                                                                         Craniata; Vertebrata;
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delta chain
                                                                           Euteleostomi;
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MEDLINE
COMMENT
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AR172707
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18 GGAGACGCTACCCACCG 34
                                                                                                                                                         y Match 71.8%;
Local Similarity 82.4%;
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AR172707 60 bp
Sequence 26 from patent US 6303344.
                                                                                                                                               14;
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Sequence 201 from patent US 5998142.
                                                                                                                                                                                                                                                            Patent: US 5998142-A 201 07-DEC-1999;
Location/Qualifiers
1. .71
                                                                                                                                                                                                                                                                                                                Unclassified.

1 (bases 1 to 71)

1 (bases 1 to 71)

Gold,L., Eaton,B., Smith,D., Wecker,M. and Jensen,K.
Systematic evolution of ligands by exponential enrichment:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              blood is oligoclonal irrespective of V region usage J. Clin. Invest. 96 (2), 1108-1117 (1995) 95362812
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                                                                                                                                                                                                                                                                                                          chemi-SELEX
                                                                                                                                                                                                                                                                                                                                                                                Unknown.
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                                                                                                                                                                                                                                  /organism="unknown"
20 c 23 q
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /protein_id="AAC41847.1"
/db_xref="GI:950496"
/translation="SYLIGAQPSYRTGSTPINS"
19 c 10 g 16 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /gene="TCRAV14S2-TCRDJ1"
/standard_name="(V alpha-14.1/ J delta-1)"
_note="putative"
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/db_xref="taxon:9606"
/clone="C.A.LR02"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /tissue_type="colon"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene="TCRAV14S2-TCRDJ1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  71.8%;
82.4%;
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                                                                                                                                             Score 12.2; DB 6;
Pred. No. 2.1e+04;
0; Mismatches 3;
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Pred. No. 2.2e+04;
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                DNA
                                                                                                                                                                       Length 71;
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                                                                                                                                               Indels
                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PAT 08-SEP-2000
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REFERENCE
AUTHORS
TITLE
JOURNAL
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ORIGIN
                                                                                                                                                                                                                                  KEYWORDS
SOURCE
                                                                                                                                                                                                                                                         ACCESSION
VERSION
밁
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Source
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Best Local Similarity
Matches 10; Conserv
                                                                                                                                                                                                                       ORGANISM
20 GARGAYCCDTCYTAYC 35
            1 ggagacccttcctacc 16
                                                                                                                                                            Methods and compositions for polypeptide engineering Patent: US 6303344-A 26 16-OCT-2001;
                                                                                                                                                                                                                          Unknown
                                                                                                                                                                                                                                                         AR172707
AR172707.1 GI:17912198
                                                                                                                                                                                   Unclassified.

1 (bases 1 to 60)

Patten, P.A. and Stemmer, W.P.C.
                                                                                                                                                                                                                                    Unknown.
                                                                                                                  11 a
                                              Conservative
                                                                                                                /organism≔"unknown"
19 c 12 g
                                                                                                                                                 Location/Qualifiers
                                                       70.6%;
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5; Mismatches
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2.9e+04;
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Search completed: June 28, 2002, 22:11:13 Job time: 8364 sec

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Result
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Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Title:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              92:
                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
                                                                                                                                                                                                         Score
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5: /SIDS1/gcgdata/geneseq/geneseqn-embl/NA1984.DAT: *
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Copyright (c) 1993 - 2000 Comp
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AAX18698
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AAV28176
AAX23688
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AAV28177
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                                                                                                                                                                                                       Description
                   Deletion sequence
Target bcl-2 antis
                                                                               Target bcl-2 antis
Bcl-2 antisense ol
                                                                                                                      Bcl-2 antisense ol
Antisense oligonuc
Deletion sequence
Hammerhead ribozym
                                                              Antisense oligonuc
                     antis
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## ALIGNMENTS

RESULT AAQ86655 ID AAQ8

AAQ86655 standard; DNA;

17 ВP

AAQ86655;

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Key
                                                                                                                             Synthetic
                                                                                                                                          Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy; lymphoma; programmed cell death; ss.
      Reed JC;
                    (REED/) REED J C.
                                                20-SEP-1994;
                                                                            WO9508350-A.
                                                                                                       misc_feature
                                                                                                                                                                 Bcl-2 antisense oligonucleotide.
                                                                                                                                                                               27-SEP-1995
                                  20-SEP-1993;
                                                              30-MAR-1995.
                                                                                                                                                                               (first entry)
                                   93US-0124256
                                                94WO-US10725
                                                                                                       Location/Qualifiers
                                                                                         /*tag= a
/note= "3'-5' (antisense) sequence"
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Best Local
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                                  bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative diseases, for treating a non-pathogen, non-hyperproliferative disease, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic
                                                                                                                                                                                                                                     e.g.
                                                                                                                                                                                                                                                                                                        Chen
                                                                                                                                                   AAV28155-268 represent oligonucleotides which can be purified using method of the invention. The specification describes a matrix that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Antisense oligonucleotides were tested for their ability to induce programmed cell death (DNA fragmentation) in the human lymphoma cell line RS11846. The oligonucleotides are phosphodiesters targeted against the translation initiation site (AAQ86650-55) or the 5'-cap
                                                                                                                     comprises a support and an affinity unit that specifically and reversibly binds a target oligonucleotide, and comprises a sequence
                                                                                                                                                                                             Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI;
                           pathogen,
                                                                                                                                                                                                                                 Matrix for selective separation of oligo:nucleotide - useful e.g. large scale purification of anti-sense agents from their
                                                                                                                                                                                                                                                                              WPI; 1998-362922/31.
                                                                                                                                                                                                                                                                                                                                   ('SIS')
                                                                                                                                                                                                                                                                                                                                                               19-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                          18-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                      25-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                W09827425-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   affinity purification; antisense; bcl-2; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Purification;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Antisense oligonucleotide to bcl-2 mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAV28177;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAV28177 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 17 BP; 3 A; 7 C; 4 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    region (AAQ86656-58) of human bcl-2 pre-mRNAs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 12; Page 33; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Anti-code oligomers which bind to bcl-2 mRNA - of human solid tumours, esp. breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 ggagacccttcctaccg
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                                                                                                                                                                                                                                                                                                                                   ISIS
                                                                                                                                                                                                                      derivatives formed during synthesis
                                                                                                                                                                                                                                                                                                        Cole DL,
                           retrovirus or other viruses
                                                                                                                                                                                             Page 83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                   PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 oligonucleotide; matrix; affinity unit;
                                                                                                                                                                                                                                                                                                                                                               96US-0769951
                                                                                                                                                                                                                                                                                                                                                                                          97WO-US23284
                                                                                                                                                                                                                                                                                                        Srivatsa GS
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                                                                                                                                                                                            183pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 17;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
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6;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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Best Local Similarity
                                                                                                                                                                                                             sensor arrays, where each array comprises a unique probe oligonucleotide, which is the reverse complement of part of a unique target oligonucleotide present in a mixture of target deletion sequence oligonucleotides. The compositions form a method for characterizing a sample of target deletion oligonucleotides which are labelled and hybridize with the probe oligonucleotides of the sensor arrays. Such oligonucleotides and their targets are represented in AAX23548 x23709. Oligonucleotides characterized by the method form pharmaceutical
                                             Syncytial Virus or cytomegalovirus (CMV). The compositions enable characterization of deletion sequence oligonucleotides having related, but different nucleobase sequences, and quantification of different species of deletion sequence ("target") oligonucleotides in a mixture. Also, if the specificity of the oligonucleotide's nucleobase sequence for its reverse complement is not modified, the method may be performed.
                                                                                                                                                            compositions that are useful for modulating cellular adhesion or proliferation, and being active against a eukaryotic pathogen, a human retrovirus, a human immunodeficiency virus (HIV), or a non-human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI;
                                                                                                                                                                                                                                                                                                                                                      This invention describes a novel composition comprising a number
                                                                                                                                                                                                                                                                                                                                                                                                                                      New compositions comprising sensor arrays made up of unique probe oligonucleotides - useful for characterizing a sample of target
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-SEP-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAX23689 standard;
                                                                                                                                               retrovirus, including influenza virus, Epstein-Barr virus, Respiratory
                                                                                                                                                                                                                                                                                                                                                                                     Example 9; Page 151; 163pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                       deletion oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-MAR-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HIV; primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              probe; cellular adhesion modulator; cellular proliferation modulator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Deletion sequence oligonucleotide; sensor array; eukaryotic pathogen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Deletion sequence oligonucleotide 142.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human retrovirus; human immunodeficiency virus; non-human retrovirus;
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                               oligodeoxynucleotides
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 entry)
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Pred. No. 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DВ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
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Sequence 17

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RESULT
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                                                                                                                                                                          A pharmaceutical composition has been developed which comprises a nucleic acid and at least one penetration enhancer. The compositions are used: (1) to treat or prevent any disease or disorder that can be treated with the nucleic acid, e.g. cancer, Alzheimer's disease, beta-thalassemia, malaria, viral infections (including human immune deficiency virus (HIV)), inflammation, in human or animal medicine; (ii) to investigate the role of a gene or gene product in non-human animals; and (iii) to modulate gene expression in cells, tissues or organs. The compositions provide bioavailability of at least 15, preferably 17-35.%. The penetration enhancer improves: (1) transport of the nucleic acid across the mucosa of the alimentary canal and into
                                                                                                                          cells; and (ii) increases stability of the nucleic acid. Oral administration avoids the complications and expense of intravenous or other methods of administration. AAX18669 to AAX18799 and AAX18801 represent antisense oligonucleotides which can be used as the nucleic acid in the method of the invention.
                                                                                                                                                                                                                                                                                                                             Composition comprising nucleic acid and penetration enhancer - use particularly for delivering therapeutic antisense oligonucleotides across the gastrointestinal mucosa, provides high bioavailability
                                                                                                                                                                                                                                                                                                                                                                         WPI; 1999-106077/09.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cellular adhesion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Target bcl-2 antisense oligonucleotide #30.
                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                          Example 2; Page 85; 115pp; English.
                                                                                                                                                                                                                                                                                                                                                                                               Hardee
                                                                                                                                                                                                                                                                                                                                                                                                                  (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      W09901579-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alzheimer's disease; beta-thalassemia; malaria; viral infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    alimentary canal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAX18698;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAX18698 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-JAN-1999
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                     ggagacccttcctaccg
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                                                    l Similarity
17; Conser
                                                                                                        17
                                                                                                                                                                                                                                                                                                                                                                                             Teng C;
                                                                                                        BP; 3
                                                  100.0%;
llarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                       97US-0886829
                                                                                                                                                                                                                                                                                                                                                                                                                                                            98WO-US13574.
                                                                                                        A; 7 C; 4 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein; proliferation; antisense oligonucleotide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    transport;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17
                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                            Score 17; DB 20; Pred. No. 9.6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gastrointestinal mucosa; cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. 9.6;
                                                                                                        3 T; 0 other;
                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                    0;
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                                                                      Length 17;
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                                                  0;
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                                                 0,
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AAQ86654
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                                                                                                                                                                                                                       Matches
        Synthetic
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Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                           programmed cell death (DNA fragmentation) in the human lymphoma cell line RS11846. The oligonucleotides are phosphodiesters targeted against the translation intitation site (AAQ86650-55) or the 5'-cap region (AAQ86656-58) of human bcl-2 pre-mrnAs.
affinity purification;
                                                                                                                               AAV28176;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Anti-code oligomers which bind to bcl-2 mRNA - for the treatment of human solid tumours, esp. breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAQ86654 standard; DNA; 17
                                                     Antisense oligonucleotide to bcl-2 mRNA.
                                                                                           08-OCT-1998
                                                                                                                                                                 AAV28176 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 17 BP; 2 A; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Antisense oligonucleotides were tested for their
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1995-139394/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-MAR-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bcl-2 antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    27-SEP-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAQ86654;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 12; Page 33; 108pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Reed JC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-SEP-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9508350-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Anticode oligomer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (REED/) REED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Lymphoma;
                                                                                                                                                                                                                                                       human solid tumours, esp. breast cancer
                                                                                                                                                                                                                                                                                                                                 14;
                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    oligomer; antisense oligonucleotide; bc1-2;
programmed cell death; ss.
                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                   oligonucleotide; matrix; affinity unit;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            93US-0124256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94WO-US10725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            oligonucleotide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
1..17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /*tag= a
/note= "3'-5' (antisense) sequence"
                                                                                                                                                                                                                                                                                                                                                    100.0%;
   antisense;
                                                                                                                                                                                                                                                                                                                                                                                                                         C; 3 G; 4 T; 0 other;
                                                                                                                                                                   17
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                                                                                                                                                                   ΒP
                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                  Score 14;
Pred. No.
                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                               DB 16; 1
. 3.8e+02;
ches 0;
                                                                                                                                                                                                                                                                                                                                                                    Length 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ability to induce
                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cancer; therapy;
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                                                                                                                                                                                                                                                                                                                                 Gaps
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RESULT
AAX23688
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              reversibly binds a target oligonucleotide, and comprises a sequence of bases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification of synthetic oligonucleotides, specifically antisense agents, for treatment of hyperproliferative diseases, for treating a non-pathogen, non-hyperproliferative disease, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic pathogen, retrovirus or other viruses.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAV28155-268 represent oligonucleotides which can be purified using method of the invention. The specification describes a matrix that comprises a support and an affinity unit that specifically and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chen
          Chen
                                                                                                                         WO9911820-A1
                                                                                                                                                                                         Deletion sequence oligonucleotide; sensor array; eukaryotic pathogen; probe; cellular adhesion modulator; cellular proliferation modulator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matrix for selective separation of oligo:nucleotide - useful for. e.g. large scale purification of anti-sense agents from their deletion derivatives formed during synthesis
                                (ISIS-) ISIS PHARM INC
                                                      02-SEP-1997;
                                                                            01-SEP-1998;
                                                                                                  11-MAR-1999
                                                                                                                                              Synthetic
                                                                                                                                                                              human retrovirus;
                                                                                                                                                                                                                            Deletion sequence
                                                                                                                                                                                                                                                   18-JUN-1999
                                                                                                                                                                                                                                                                          AAX23688
                                                                                                                                                                                                                                                                                               AAX23688 standard; DNA; 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 1998-362922/31
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                                                                                                                                                                    primer;
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                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
         Srivatsa GS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          ВP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Page 82;
                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96US-0769951
                                                      97US-0923771
                                                                            98WO-US18084.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          Α
                                                                                                                                                                              human immunodeficiency virus; non-human
                                                                                                                                                                                                                            oligonucleotide 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Srivatsa
                                                                                                                                                                                                                                                                                                                                                                             17
                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 C;
                                                                                                                                                                                                                                                                                                                                                                                                              82.4%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     183pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ω
                                                                                                                                                                                                                                                                                               ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                          G;
                                                                                                                                                                                                                                                                                                                                                                                                   0;
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                                                                                                                                                                                                                                                                                                                                                                                                               Score 14;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 T;
                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                          0 other;
                                                                                                                                                                                                                                                                                                                                                                                                  DB 19; I
3.8e+02;
hes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                        Length 17
                                                                                                                                                                                                                                                                                                                                                                                                   Indels
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Composition comprising nucleic acid and penetration enhancer - used

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RESULT
AAX18697
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Syncytial virus or cytomegalovirus (CMV). The compositions enable characterization of deletion sequence oligonucleotides having related, but different nucleobase sequences, and quantification of different species of deletion sequence ("target") oligonucleotides in a mixture. Also, if the specificity of the oligonucleotide's nucleobase sequence for its reverse complement is not modified, the method may be performed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           compositions that are useful for modulating cellular adhesion or proliferation, and being active against a eukaryotic pathogen, a retrovirus, a human immunodeficiency virus (HIV), or a non-human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         target oligonucleotide present in a mixture of target deletion sequence oligonucleotides. The compositions form a method for characterizing a sample of target deletion oligonucleotides which are labelled and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sensor arrays, where each array comprises a unique probe oligonucleotide, which is the reverse complement of part target oligonucleotide present in a mixture of target de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New compositions comprising sensor arrays made up of unique probe oligonucleotides - useful for characterizing a sample of target deletion oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI;
                                                                                                                                                                                                                                                                                                   Cellular adhesion protein; proliferation; antisense oligonucleotide; alimentary canal; transport; gastrointestinal mucosa; cancer; Alzheimer's disease; beta-thalassemia; malaria; viral infection;
                             WPI; 1999-106077/09
                                                                                                                          01-JUL-1997;
                                                                                                                                                           01-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                  Target bcl-2 antisense oligonucleotide #29.
                                                                                                                                                                                                                                                                                                                                                                                                  10-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                 AAX18697;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAX18697 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Oligonucleotides characterized by the method form pharmaceutical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hybridize with the probe oligonucleotides of the sensor arrays. Such oligonucleotides and their targets are represented in AAX23548-X23709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This invention describes a novel composition comprising
                                                                                            (ISIS-) ISIS PHARM INC
                                                                                                                                                                                          14-JAN-1999
                                                                                                                                                                                                                        WO9901579-A1
                                                                                                                                                                                                                                                     Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   using oligodeoxynucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              retrovirus, including influenza virus, Epstein-Barr virus, Respiratory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 9; Page 150; 163pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4 gaccettectaceg
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                                                                                                                                                                                                                                                                                     inflammation;
                                                             6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                             Teng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP; 2 A; 8 C; 3 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                           97us-0886829
                                                                                                                                                         98WO-US13574
                                                           C;
                                                                                                                                                                                                                                                                                        SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14
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100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 14;
Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cused: (1) to treat or prevent any disease or disorder that can be cused: (1) to treat or prevent any disease or disorder that can be cused: (1) to treat or prevent any disease or disorder that can be cused: (1) to treat or prevent any disease or disorder that can be cused: (1) to treat or prevent any disease or disorder that can be beta-thalassemia, malaria, viral infections (including human immune cused control of the cused of the role of a gene or gene product in non-human cused in the cused of the cused of the role of a gene expression in cells, tissues or cused in the cused of the nucleic acid across the mucosa of the alimentary canal and into cells; and (ii) increases stability of the nucleic acid. Oral cused of the nucleic acid across the mucosa of the alimentary canal and into cells; and (ii) increases stability of the nucleic acid. Oral administration avoids the complications and expense of intravenous or other methods of administration. AAX18669 to AAX18799 and AAX18801 cused on the complications of the nucleic acid. Oral cused on the cused as the nucleic cused on the cused of the nucleic acid. Oral cused on the cused of the cused of the nucleic acid. Oral cused on the cused of the nucleic acid. Oral cused on the cused of the nucleic acid. Oral cused on the cused of the nucleic acid. Oral cused on the cused of the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on the nucleic acid. Oral cused on 
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The present invention relates to enzymatic and antisense nucleic acid molecules that act as inhibitors of the expression of repressor genes encoding the TR2 Ozphan receptor. EAR3/COUP-TF-1, the GATA transcription factor gene, IRF-2 and/or the CAATT Displacement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                particularly for delivering therapeutic antisense oligonucleotides across the gastrointestinal mucosa, provides high bioavailability
                                                                                                                                                                                                                                                                       WPI; 2000-647423/62.
                                                                                                                                                                                                                                                                                                                                                                                                                    12-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-APR-2000; 2000WO-US09721
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 W0200061729-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ribozyme; erythropoietin; granulocyte colony stimulating factor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hammerhead ribozyme substrate #928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-FEB-2001 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 17 BP; 2 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        acid in the method of the invention.
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                                                                                                                                                                                            Enzymatic and antisense nucleic acid inhibition of repressor genes, useful for producing e.g. granulocyte colony stimulating factor
                                                                                                                                                                                                                                                                                                                                                                    (RIBO-) RIBOZYME PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         interferon alpha;
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                                                                                                                        37; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14;
                                                                                                                                                                     interferon alpha and erythropoietin
                                                                                                                                                                                                                                                                                                                  Zwick M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Page 85; 115pp; English
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                                                                                                                           77;
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                                                                                                                                                                          stimulating -
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                                                                                                                                     A synthetic DNA probe (AAT29732) is based on a rat Hct-1 cDNA clone (see also AAT29723), beginning 112 nt 5' from the polyA tail. It can be used with a rat Hct-1 probe (AAT29729) and Nathans mouse
                                                                                                                                                                                                                                                                                                                                                                                                                             Hippocampus-associated protein; Hct-1; cytochrome-P450; steroid transformation; neuropsychiatric disorder; cognition; neurodegenerative disease; endocrine disorder; diagnosis;
                                                                                                                                                                                                              Novel hippocampus-associated proteins, Hct-1 - related to cytochrome(s) P450 and useful for catalytic transformation
                                                                                                                                                                               Disclosure; Page 28; 70pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                    probe;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAT29732 standard; DNA; 45 BP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein and interferon alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Protein (CDP). Inhibition of the repressors removes prevents inhibition (and consequently increases expression of) genes involved the production of erythropoietin, granulocyte colony stimulating fact
                                                                                            Sequence 45
                                                                                                                                                                                                                                                                  Lathe R,
                                                                                                                                                                                                                                                                                      (UYED-) UNIV EDINBURGH
                                                                                                                                                                                                                                                                                                             19-OCT-1994;
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                                                                                                                                                                                                                                                                                                                                                                                               Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rat clone 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-AUG-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAT29732;
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                                                    Local Similarity
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            1 ggagacccttcctacc 16
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ggagtcccatcctacc
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                                                                                                                          (AAT29730) for in situ hybridizations
                                          14;
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                                                                                                                                                                                                                                                                  Rose KA, Stapleton
                                                                                             BP;
                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hct-1 probe
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                                                                                                                                                                                                                                                                                                                                                                               antirheumatic, antisclerotic, antidiabetic, antiinflammatory, cytostatic, antiirheumatic, neuroprotective and antimicrobial activity and may be useful in gene/protein therapy, vaccines, modulation of the expression and activity of proteins related to angiopoietin, 4-hydroxybutyrate, dehydrogenase, adenosine triphosphate (AFP) dependent RNA helicase, major histocompatibility complex (MHC) Class I histocompatibility antigen and/or phosphoglycerate kinase. Disorders that may be prevented, diagnosed and/or treated by the above methods include multifactorial diseases with a genetic component, such as autoimmune diseases (e.g. rheumatoid arthritis, multiple sclerosis, diabetes, systemic lupus erytheromatosus and Grave's disease), inflammation, cancer (e.g. cancers of the bladder, brain, breast, colon and kidney, leukemia), diseases of the nervous system, an infection of pathogenic organisms. They may also be used to alter phentypic traits such as longevity, appearance,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4-hydroxybutyrate; dehydrogenase; protein therapy; adenosine triphosphate-dependent RNA helicase; major histocompatibility complex Class I histocompatibility antigen; MHC; phosphoglycerate kinase; immunosuppressive; immunostimulatory; antirheumatic; antisclerotic; antidiabetic; antiinflammatory; cytostatic; antileukemic; neuroprotective; antimicrobial; gene therapy; vaccine; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Class I histocompatibility antigen and/or phosphoglycerate kinase. 'nucleic acid single nucleotide polymorphisms (SNPs) and the encoded proteins have potential immunosuppressive, immunostimulatory,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to nucleic acids (AAHP9386-AAH80036) encoding polymorphic variants of proteins (AAG98010-AAG98238) related to angiopoietin, 4-hydroxybutyrate, dehydrogenase, adenosine triphosphate (ATP)-dependent RNA helicase, major histocompatibility complex (MHC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Polymorphic nucleic acids encoding e.g. angiopoietin, dehydrogenase, adenosine triphosphate-dependent RNA helicase and/or phosphoglycerate kinase, useful for diagnosing and treating, e.g. cancer, autoimmune
                                                                                                                                                                                                                                                                                           Sequence 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 240; 484pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAH80008 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      diseases and infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-418297/44.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27-DEC-1999;
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                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                           ₿₽;
                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99US-0,472688
                                                                                                                                                                                                                                                                                        13 A; 14 C;
                                                                                                                                                           75.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     51
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                                                                                                                                                                                                                                                                                           17
                                                                                                                            0;
                                                                                                                                                       Score 12.8; DB 22
Pred. No. 1.8e+03;
                                                                                                                                                                                                                                                                                           G; 7
                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                           T; 0 other;
                                                                                                                                                                                         DB 22;
                                                                                                                                                                                         Length 51;
                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö.
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ggtgacccttccta ggagacccttccta 14

17

Matches

Local Similarity nes 13; Conserv

Conservative

0;

72.9%;

Score 12.4; DB 22 Pred. No. 2.7e+03; Mismatches

22;

18; 0;

Indels Length

Gaps

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AAS04946
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05-JUN-2000;
16-JUN-2000;
                                                    NA is then amplified and peptide fragments are obtained by in vitro transcription/translation of amplified fragments. Mutation analysis of NF1 is used for detection of frame shift, mis-sense and silent mutations in various exons of the gene. This is useful in screening for NF1 mutations in young children who are often oligosymptomatic. Efficacy of a drug or agent can be identified by a screening process in which modulation is monitored in vitro using cell systems in which the defective NF1 gene is expressed. The sequences can be used to design drugs which modulate NF1 activity, by using knowledge of the structure of the NF1 protein and of specific defects of the various NF1 mutant proteins. The method allows for reliable analysis of mutations that are
                                                                                                                                                                                                                                                                                                                            The sequences represent neurofibromatosis type 1 (NF1) cDNA fragments PCR primers and sequencing primers for use in mutation analysis of NF1 method for mutation analysis of the NF1 gene involves isolating peripheral blood lymphocytes (PBL) of a patient, establishing peripheral blood lymphocytes (PBL) of a patient, establishing Epstein-Barr virus (EBV) transformed B-lymphoblastoid cell line with
                                                                                                                                                                                                                                                                     isolated PBL, or short-term culturing of PBL by phytohaemagglutinin (PI stimulation, treating the cell line or short-term culture with protein synthesis inhibitor and immediately extracting RNA from the cultures.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mutation analysis of NF1 gene by treating EBV transformed lymphoblastoid cell lines formed with lymphocytes of patient with protein synthesis inhibitor, and obtaining peptides by translating amplified RNA from cell line -
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 9; Page 57; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sequencing primer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-SEP-2001
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Sequence 18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Neurofibromatosis type 1; NF1; peripheral blood lymphocyte; PBL; EBV Epstein-Barr virus; B-lymphoblastoid cell; phytohaemagglutinin; PHA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Neurofibromatosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Messiaen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (UYGE-) UNIV GENT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12
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; 2000EP-0870122.
; 2000US-0211629.
BP; 3 A; 6 C; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Callens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (NF1) cDNA sequencing primer #31
                                    due to unstable or wrong-spliced transcripts
                                                                                                                                                                                                                                                                         and immediately extracting RNA from the cultures. The
  G; 6 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                           of NF1.
                                                                                                                                                                                                                                                                                                              (PHA)
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                                                                                                                                                                                  CC This invention describes a novel method for the detection and/or typing CC of Helicobacter pylori strains present in a sample using PCR primers and CC probes to detect regions of the vacuolating toxin (vacA) gene and other CC virulence determinant genes (VDG) e.g. the cytotoxin-associated (cagA) (CC strain according to the VDG alleles present in that particular H. pylori CC strain. The virulence determinant genes are the genetic elements CC involved in enabling determining, and marking the infectivity and/or CC pathogenicity of the H. pylori strain. The method provides a way of CC detecting H. pylori strains in a sample with respect to the development CC of chronic active gastricts, gastric and duodenal ulcers, gastric CC adenocarcinomas, mucosa-associated lymphoid tissue lymphomas, and/or CC determining eradication therapy. AAV73508-V73546 represent PCR primers CC and probes used in the detection of the H. pylori vacA and cagA genes. CC Sla/DC and S2 and the M regions M1 and M2 which are represented in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 13
                                                                Matches
                                                                                                                                            Sequence 20 BP; 4 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 2; Page 44; 122pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Method for detecting and/or typing Helicobacter pylori strains comprises use of primers and probes based on vacA and cagA gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S region; Sla; :
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09-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    virulence determinant gene; cytotoxin-associated gene; allele-specific; infectivity; pathogenicity; gastritis; gastrit; duodenal; ulcer; adenocarcinoma; mucosa-associated lymphoid tissue lymphoma; therapy; s region; Sla; Slb; Slc; S2; M region; M1; M2; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    H. pylori vacA primer VAlXR
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                                                                Local Similarity hes 13; Conserv
4 garaccgttcctacag 19
                2 gagaccettcetaceg 17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    probe; vacA; cagA; detection; vacuolating toxin; VDG;
                                                                Conservative
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97EP-0870133.
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                                                                            Score 12.4;
Pred. No. 2
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                                                                              .8e+03
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RESULT 14 AAZ26082/c

RESULT 15 AAD11413/c

AAD11413 standard; DNA; 17 BP

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15 GAGGCCCTTCCTAC 2 gagacccttcctac 15

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Matches Query Match

Local Similarity hes 13; Conserv

Conservative

72.9%;

Score 12.4; Pred. No. 2.

2.8e+03; DB 19;

Length

21; 0,

Gaps

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Mismatches

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cc active on a gene vital for treatment of cancer, where the inhibitor is calculated as subject to loss of heterozygosity (LOH) in a cancer. The inhibitor is cused for preventing the development of cancer in a patient having a compression condition, by administering to the patient a first allele expecific inhibitor (ASI) targeted to an allele of a first essential gene compressent in cells of the precancerous condition, where the normal somatic colls of the patient are heterozygous for the first gene, the inhibitor colls of the patient are heterozygous for the first gene, the inhibitor colls active on at least one but less than all allelic forms of the gene cormal somatic cells, and the first gene. The products and methods can be used in the diagnosis, prevention and treatment of LOH disorders, collsease, and graft versus host disease. The method can also be used to remove malignant cells from bone marrow transplants. AAX25812-226825 creaters in human polymorphic sites described in the method of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Identifying target genes for allele-specific drugs - used for diagnosis, prevention and treatment of, e.g. cancers, atherosclerotic plaque, dysplastic lesions, endometriosis or graft versus host disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Polymorphism; human; inhibitor; cancer; treatment; cell growth; IOH; cell viability; loss of heterozygosity; precancerous condition; ASI; callele specific inhibitor; somatic cell; diagnosis; prevention; atherosclerotic plaque; premalignant metaplastic lesion; endometriosis; dysplastic lesion; benign tumour; polycystic kidney disease; transplant; graft versus host disease; malignant cell removal; bone marrow; ss.
Sequence 21 BP;
                                                                                                                                                                                                                                                                                                                                                                             This invention describes a novel method for identifying an inhibitor
                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Figure 7; 605pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1998-521232/44.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-MAR-1998;
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AAD11413;

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Search completed: June 28, 2002, Job time: 8092 sec
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention relates to the methods for manufacturing five-carbon aldo- and keto-sugars and sugar alcohols by fermentation in recombinant hosts. The recombinant hosts of the invention have been engineered to enhance the production of the pentose phosphate pathway intermediates, or the production of one or more of xylitol, D-arabitol, D-arabinose, D-lyxose, ribitol, D-ribose, D-ribulose, D-xylose and/or D-xylulose. Arabitol phosphate dehydrogenase (APDH) is used in a microbial host cell to produce recombinant arabitol. Xylitol phosphate dehydrogenase are used in a microbial host cell to produce recombinant xylitol. The present sequence is a PCR primer which is used for the amplification of disruption cassette of plasmid B1154, used in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                which can encodes xy
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Ruohonen L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Five-carbon sugar; aldo-sugar; keto-sugar; sugar alcohol; fermentation; pentose phosphate pathway; xylitol; D-arabitol; D-arabinose; D-lyxose; ribitol; D-ribose; D-ribulose; D-xylose; D-xylulose; microbial host; arabitol phosphate dehydrogenase; APDH; xylitol phosphate dehydrogenase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Isolated polynucleotide, used to transform bacterial or yeast hosts which can then be used in the production of sugars and sugar alcohols, encodes xylitol phosphate dehydrogenase -  \frac{1}{2} \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1}{2} \right) \left( \frac{1
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Pred. No. 3.5e+03;
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Result
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q length: 75
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1: /cgn2_6/ptodata/1,
2: /cgn2_6/ptodata/1,
3: /cgn2_6/ptodata/1,
4: /cgn2_6/ptodata/1,
5: /cgn2_6/ptodata/1,
6: /cgn2_5/ptodata/1,
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12.482 Million cell updates/sec
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Copyright (c) 1993 - 2000 Compugen Ltd
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/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/FCTUS_COMB.seq:*
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US-08-465-485A-13
US-09-080-285-13
US-09-080-285-12
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US-09-845-161A-17
US-08-845-17
US-08-894-578-201
US-09-339-9138-26
US-09-339-9138-26
US-09-339-904A-26
US-08-944-173-12
US-09-398-193-12
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US-09-398-193-12
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US-08-365-626-23
US-08-365-626-23
US-08-365-626-40
US-08-365-626-40
US-08-365-10245-40
US-09-315-793-14
US-09-418-641-82
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US-09-305-764C-21
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65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	67.1	67.1
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US-07-618-946B-17	PCT-US94-13895-22	US-09-023-673-3	US-08-791-883-3	US-08-880-830-22	US-08-708-431-22	US-08-169-303-6	US-08-116-389-22	PCT-US95-09145A-16	US-08-776-088-16	US-08-276-919-11	PCT-US94-13895-23	US-08-880-830-23	US-08-708-431-23	US-08-116-389-23	US-09-290-449-11	US-09-025-769B-129	US-09-591-025-5
Sequence 17, Appl	Sequence 22, Appl	Sequence 3, Appli	Sequence 3, Appli	Sequence 22, Appl	Sequence 22, Appl	Sequence 6, Appli	Sequence 22, Appl	•	Sequence 16, Appl	Sequence 11, Appl	Sequence 23, Appl	Sequence 23, Appl	Sequence 23, Appl	Sequence 23, Appl	Sequence 11, Appl	Sequence 129, App	Sequence 5, Appli

## ALIGNMENTS

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RESULT 1
US-08-465-485A-13
US-08-465-485A-13
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                                                                                                        TELEFAX: (408) 436-2075
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 05-JUN-1995
CLASSIFICATION: 514
PRIOR APPLICATION UNATE: US 08/124,256
FILING DATE: 20-SEP-1993
PRIOR APPLICATION UNATE: 20-SEP-1993
                                                                                                                                                                                 REGISTRATION NUMBER: 34,600
REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
                 MOLECULE TYPE:
ANTI-SENSE: YI
                                                                                                                                                                                                                                                            FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
NAME: Fortney, Andrew D.
                                                                                                                                                                                                                                                                                                                                       FILING DATE: 21-FEB-1992 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Reed, JO
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES:
                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 0 FILING DATE: 22-DEC-1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/08/465,485A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, ADDRESSEE: P.C.
                                                                     STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET:
                                                                                        nucleic acid
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1755 S. Jefferson Davis Hwy.,
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                                                   linear
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                                 DNA (genomic)
                                                                       single
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                                                          Matches
                                                        Best Local Similarity Matches 17; Conserv
                                                                                     Query Match
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                                                                                                                                                                                                                                              TELEFAX: (408) 436-2075 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                          MOLECULE TYPE: DN
                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
TELEPHONE: (408) 436-2070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: Regulation of bcl-2 Gene Expression NUMBER OF SEQUENCES: 29
                                                                                                                                                                                                                                                                                                                                               FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
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                                                                                                                                                                     STRANDEDNESS: Si
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 0 FILING DATE: 20-SEP-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 34,600
                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION:
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LENGTH:
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                                                                                                                                                                                                 nucleic acid
                                                                                                                                                                                                                                                                                                                                   Fortney, Andrew D.
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                                                                                                                                                                                                                17 base pairs
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1755 S. Jefferson Davis Hwy., Suite 400
                                                        100.0%; ilarity 100.0%; Conservative (
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                                                                                                                                                                                                                                                                                                                                                                                                        UMBER: US 07/840,716
21-FEB-1992
                                                                                                                                                           DNA (genomic)
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                                                                    Score 17; DB 3 Pred. No. 0.73;
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Pred. No. 0.73;
                                                          Mismatches
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                                                                                     DB 3;
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US-09-080-285-12
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US-08-465-485A-12
                                                                                                                                                 RESULT
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                                                                           Sequence 12, Application US/09080285
Patent No. 6040181
GENERAL INFORMATION:
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                  Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (408) 436-20 INFORMATION FOR SEQ ID NO:
               TITLE OF INVENTION: Regulation of bcl-2 Gene Expression NUMBER OF SEQUENCES: 29 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE:
ANTI-SENSE: Y
                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 17 base pairs
TYPE: nucleic acid
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TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 07/288,692 FILING DATE: 22-DEC-1988 ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER:
FILING DATE: 21-FEB-
PRIOR APPLICATION DATA:
                                                                 APPLICANT:
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APPLICATION NUMBER: US 08/124,256
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS: single
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OPERATING SYSTEM: PC-DOS/MS-DOS
 ADDRESSEE:
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                                                                 Reed, John
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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT
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32;
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ADDRESSEE:

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US-08-845-161A-17

; Sequence 17, Application US/08845161A

; Patent No. 5976850
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Best Local Similarity
                                                                                                                                                                                                                                            GENERAL INFORMATION:
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FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/
FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (408) 436-2075 INFORMATION FOR SEQ ID NO: 1
                                                                                                                                     APPLICANT: Lathe, Richard
APPLICANT: Rose, Kenneth A.
APPLICANT: Stapleton, Genevieve
APPLICANT: Stapleton, Genevieve
TITLE OF INVENTION: HIPPOCAMPUS-ASSOCIATED PROTEINS; DNA
TITLE OF INVENTION: SEQUENCES CODING THEREFOR AND USED THEREOF
NUMBER OF SEQUENCES: 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 01 FILING DATE: 20-SEP-1993 PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 08/465,485
FILING DATE: 05-JUN-1995
PRIOR APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
COMPUTER READABLE FORM:
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LENGTH: 17 base pairs
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TELECOMMUNICATION INFORMATION:
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STATE: Virginia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
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REGISTRATION NUMBER: 34,600
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                                                                  CITY: Arlington
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1755 S. Jefferson Davis Hwy., Suite 400
                                                                                  E: NIXON & VANDERHYE P.C.
1100 No. 5976850th Glebe
                                  USA
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E: DNA (genomic)
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100.0%;
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Pred. No.
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32;
                                                                                    8th floor
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RESULT 6
US-09-270-751-17
; Sequence 17, Application
; Patent No. 6184350
; GENERAL INFORMATION:
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Best Local Similarity
watches 14; Conserv
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 18-CCT-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: GB 942
FILING DATE: 19-OCT-1994
ATTORNEY/AGENT INFORMATION:
NAME: Wilson, Mary J.
REGISTRATION NUMBER: 32,95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: 60
TELECOMMUNICATION INFORMATION:
TELEPHONE: 703-816-4000
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
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                                                                                                       COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION UNMBER: US/09/270,751
FILING DATE: 17-Apr-2000
CLASSIFICATION: CUnknown>
             PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/GB95/02465
FILING DATE: 18-OCT-1995
APPLICATION NUMBER: GB 9421093.7
FILING DATE: 19-OCT-1994
                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: NIXON & VANDERHYE P.C.
STREET: 1100 No. 6184350th Glebe Rd.
                                                                                                                                                                                                                                                                                                                                                                                                                                 Rose, Kenneth A.
Stapleton, Genevieve
TITLE OF INVENTION: HIPPOCAMBUS-ASSOCIATED PROTEINS; DNA
SEQUENCES CODING THEREFOR AND USED THEREOF
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Lathe, Richard
                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                   COUNTRY: USA
ZIP: 22201-4741
                                                                                                                                                                                                                                                                                                                         CITY: Arlington STATE: VA
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Pred. No. 1.6e+02;
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                                                                               INFORMATION FOR SEQ ID NO: 17:
                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Feder, Scott B
REGISTRATION UNMBER: 33,129
REFERENCE/DOCKET NUMBER: 526:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 312-372-7842
TELEFAX: 312-372-7848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: Sreekr
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                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                              SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Production of Bacilli
TITLE OF INVENTION: Methylotrophic Yeast
                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
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CTTY: Chicago
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                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                              CLASSIFICATION: 435
                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/08/231,342 FILING DATE:
                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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               STRANDEDNESS:
                                 TYPE:
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                                               ENGTH:
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                            nucleic acid
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Koutz, Patricia
unknown
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87.5%;
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Pred. No. 1
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Best Local Similarity 92.9%;
                TELEFAX: (303) 793-34 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM: MS-DOS
SOFTWARE: WORDPERFECT 6.0
CURRENT APPLICATION DATA:
                                                                                FILING DATE: 20-SEPTEMBER-1994
ATTORNEY/AGENT INFORMATION:
NAME: BAITY J. SWANSON
REGISTRATION NUMBER: 33,215
REFERENCE/DOCKET NUMBER: NEX28,
                                                                                                                                                                                      APPLICATION NUMBER: 08/234
FILING DATE: 28-APRIL-1994
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 10-JUNE PRIOR APPLICATION DATA:
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TITLE OF INVENTION: SY
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SEQUENCE CHARACTERISTICS:
                                                  TELECOMMUNICATION INFORMATION: TELEPHONE: (303) 793-3333
                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                            FILING DATE: 8-SEPTEMBER-1993
PRIOR APPLICATION (DATA:
APPLICATION (MABER: 08/123,935
FILING DATE: 17-SEPTEMBER-1993
                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 11-JUNE-1990 PRIOR APPLICATION DATA:
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40 GACCGTTCCTACCG 27
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/894,578
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                                 793-3433
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                   201:
                                                                                     NEX28/PCT
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Pred. No. 2.7e+02;
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Query Match
Best Local Similarity
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; MOLECULE TYPE:
US-08-894-578-201
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PRIOR FILING DATE: 1996-12-18
PRIOR APPLICATION NUMBER: 08/198,431
PRIOR FILING DATE: 1994-02-17
PRIOR APPLICATION NUMBER: 08/425,684
PRIOR FILING DATE: 1995-04-18
PRIOR APPLICATION NUMBER: 08/537,874
PRIOR FILING DATE: 1995-10-30
                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                      Sequence 26, Application US/09339904A Patent No. 6319713
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LENGTH: 60
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                  CURRENT APPLICATION NUMBER: US/09/339,904A CURRENT FILING DATE: 1999-06-24 PRIOR APPLICATION NUMBER: 08/769,062 PRIOR FILING DATE: 1996-12-18 PRIOR APPLICATION NUMBER: 08/198,431 PRIOR APPLICATION NUMBER: 08/198,431 PRIOR APPLICATION NUMBER: 08/425,684 PRIOR APPLICATION NUMBER: 08/425,684
                                                                                                                                                        APPLICANT: Stemmer, Willem P.C.
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING
FILE REFERENCE: 02-020504US
                                                                                                                                                                                                 APPLICANT: Patten, Phillip APPLICANT: Stemmer, Willer
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SOFTWARE: PatentIn Ver. 2.0
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TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING
FILE REFERENCE: 02-020503US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Patten, Phillip APPLICANT: Stemmer, Willer
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APPLICATION NUMBER: 08/425,684 FILING DATE: 1995-04-18
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82.4%;
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Pred. No. 4.6e+02;
5; Mismatches 1;
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                                                                                                                    US-09-344-002B-26; Sequence 26, Application US/09344002B; Patent No. 6355484; Patent No. 6355484; GENERAL INFORMATION:
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LENGTH: 60
TYPE: DNA
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SEQ ID NO 26
LENGTH: 60
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Best Local Similarity
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Best Local Similarity
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PRIOR FILING DATE: 1995-10-30
NUMBER OF SEQ ID NOS: 101
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Pred. No.
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; OTHER INFORMATION: Description of Artificial Sequence: degenerate ; OTHER INFORMATION: oligonucleotide used for codon usage library US-09-339-904A-26
APPLICANT: Patten, Phillip
APPLICANT: Stemmer, Willem P.C.
APPLICANT: Stemmer, Willem P.C.
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING
FILE REFERENCE: 02-020502US
CURRENT APPLICATION NUMBER: US/09/344,002B
CURRENT FILING DATE: 199-06-24
PRIOR APPLICATION NUMBER: 08/769,062
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TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR POLYPEPTIDE ENGINEERING
FILE REFERENCE: 02-020500US
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Pred. No. 4.6e+02;
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; OTHER INFORMATION: Description of Artificial Sequence: PCR Primer ; OTHER INFORMATION: 1kb extension of cDNA clone jp134 of AtT20 US-08-894-173-12
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RESULT 14
US-09-398-193-12
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PRIOR FILING DATE: 1995-10-30
NUMBER OF SEQ ID NOS: 101
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 26
LENGTH: 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 12, Application US/08894173A
Patent No. 6090612
GENERAL INFORMATION:
APPLICANT: Medical Research Council
TITLE OF INVENTION: Adenylate cyclase and uses therefor
FILE REFERENCE: P14716C
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Best Local (
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Best Local Similarity
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CURRENT FILING DATE: 1997-08-13
NUMBER OF SEQ ID NOS: 97
SOFTWARE: Patentin Ver. 2.1
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PRIOR APPLICATION NUMBER: 08/198,431
PRIOR FILING DATE: 1994-02-17
PRIOR APPLICATION NUMBER: 08/425,684
PRIOR FILING DATE: 1995-04-18
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ORGANISM: Artificial Sequence
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20 gargayccdtcytayc 35
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86.7%;
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Pred. No.
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GENERAL INFORMATION:
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TITLE OF INVENTION: Adenylate cyclase and uses therefor
FILE REFERENCE: P24360-
CURRENT APPLICATION UMBER: US/09/398,193
CURRENT FILING DATE: 1999-09-17
NUMBER OF SEQ ID NOS: 104
SOFTWARE: Patentin Ver. 2.1
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OTHER INFORMATION: HYPOTHETICAL: NO
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                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Diamandis, Eleftherios
APPLICANT: Dunn, James M.
APPLICANT: Stevens, John K.
TITLE OF INVENTION: Method, Reagents and Kit for Diagnosis
TITLE OF INVENTION: and Targeted Screening for p53 Mutation
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/2
FILING DATE: 08-JUL-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                       COMPUTER READABLE FORM: MEDIUM TYPE: Diskette,
                                                                                                                                         CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                 STATE: N
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Local Similarity 86.7%;
hes 13; Conservation
                                                                                                                                                            COMPUTER: IBM Compatibl
OPERATING SYSTEM: DOS S
SOFTWARE: Word Perfect
                                                                                 CLASSIFICATION: 435
                                                                                                    FILING DATE:
                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Oppedahl & Larson STREET: 1992 Commerce Street,
                                                                                                                       APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                       and Targeted Screening for p53 Mutations
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Pred. No. 5.2e+02;
0; Mismatches 2
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AX107320 AX099682

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AR052616

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     Query
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Listing first 45 summaries
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Reed, J.C.
Reed, J.C.
ReyLlation of bcl-2 gene expression
Patent: US 5831066-A 14 03-NOV-1998;
                                                                                                 AR052616 15 bp
Sequence 14 from patent US 5831066.
AR052616
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                                                                      Unclassified.
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AX107320
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AR094326 Sequence
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AR171053 Sequence
AX196109 Sequence
I72458 Sequence 42
AR025492 Sequence
AR107317 Sequence
AX107317 Sequence
AX107319 Sequence
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AR160289

AR052628 Sequence
AR130110 Sequence
AX146640 Sequence
AX147141 Sequence
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AX180459 Sequence
AX2878729 Sequence
AX278729 Sequence

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PAT 29-SEP-1999

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1 (bases 1 to 40)
Anderson, H.M., Chay, C.A., Chen, G. and Conner, T.W.
Plant regulatory sequences for control of gene ex
Patent: WO 0119976-A 38 22-MAR-2001;
MONSANTO COMPANY (US)
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Location/Qualifiers
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/db_xref="taxon:32630"
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from Patent WO0123606.
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AR052628
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Sequence
AR130110
Zea mays
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACC
clade; Panicoideae; Andropogoneae; Zea.
                                                            Sequence 16 from Patent AX146640 AX146640.1 GI:14285033
                                                                                                                                                                                                                                                                                 1 (bases 1 to 20)
Popoff,I., Brown Driver,V.L. and Cowsert,L.M.
Antisense inhibition of e2f transcription factor 1 expression
Patent: US 6187587-A 13 13-FEB-2001;
Location/Qualifiers
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l similarity 92.9%;
l3; Conservative
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13; Conser
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                                                                                                 synthetic construct.
synthetic construct
                                                                                                                                        AX147142.1 GI:14346318
                                                                                                                                                   Sequence 100 from Patent AX147142
                                                                                                                                                                              AX147142
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helent Jaris, T.G.
             Wong,
                   for gpcr's Patent: WO 0136481-A 100 25-MAY-2001;
                                                                         artificial sequence.
1 (bases 1 to 30)
                                                                                                                                                                                                                                                                                                                                                                                                                                              Wong, Yung Hou (CN)
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                                               Novel chimeric g-alpha proteins displaying increased promiscuity
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a
           Yung Hou (CN)
Location/Qualifiers
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7 c 15 g
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/db_xref="taxon:4577"
7 c 10 g
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92.9%;
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Pred. No. 3.3e+05;
0; Mismatches 1;
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AX147156
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artificial sequence.
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AX147155
AX147155.1 GI:14346326
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Sequence 114 from Patent WO0136481.
AX147156
                                                                                                                                      artificial sequence.
1 (bases 1 to 30)
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Location/Qualifiers
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                                                                                     Patent: WO 0136481-A 114 25-MAY-2001;
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                                                                         Wong, Yung Hou (CN)
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/organism="synthetic construct"
/db_xref="taxon:32630"
/note="PCR primer"
a 15 c 7 g 7 t
/organism="synthetic construct"
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Pred. No. 3.2e+05
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Novel chimeric g-alpha proteins displaying increased promiscuity
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                                                                                                                                                Wong, Y.H.
Novel chimeric g-alpha
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Patent: WO 0136481-A 115 25-MAY-2001;
Wong, Yung Hou (CN)
                                                                                                                  Patent: WO 0136481-A 116 25-MAY-2001;
Wong, Yung Hou (CN)
                                                                                                                                                                      artificial sequence.
1 (bases 1 to 30)
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                                                    /db_xref="taxon:32630"
/note="PCR primer"
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                                                                                                                                                                                                    Tasset,D., Pagratis,N., Jayasena,S. High affinity nucleic acid ligands o Patent: US 5972599-A 37 26-0CT-1999;
                                                                                                                                                                                                                                                                                   Sequence 37 from patent US
AR081378
AR081378.1 GI:10008104
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Unclassified
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Sequence 8 from Patent WO9827225.
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A91129.1 GI:6740159
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0; Mismatches 1;
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Pred. No. 2.5e+05;
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DEFINITION

Z.mays transposon

Ac insertion sequence

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bz-m2(Ac)

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AUTHORS
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SOURCE
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/db_xref="taxon:4577"
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

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13	13.4	13.4	13.4	13.4	15	15	15	15	Score
86.7	89.3	89.3	89.3	89.3	100.0	100.0	100.0	100.0	% Query Match
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AA168077	AAL29213	AAF81441	AAH49944	AAF45301	AAX18699	AAX23690	AAV28178	AAQ86656	ID
6-desmethyl-epothi	Human SNP oligonuc	PCR primer GSP2 fo	Bacterial 23S/5S R	IGFBP2 oligonucleo	Target bcl-2 antis	Deletion sequence	Antisense oligonuc	Bcl-2 antisense ol	Description

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### ALIGNMENTS

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misc\_feature 20-SEP-1994; WO9508350-A. 30-MAR-1995 94WO-US10725 Location/Qualifiers
1..15 /\*tag= a /note= "3′-5′ (antisense) sequence"

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RESULT
AAV28178
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Best Local
                                                                                                                                                                                            Matrix for selective separation of oligo:nucleotide - e.g. large scale purification of anti-sense agents from deletion derivatives formed during synthesis
                                              reversibly binds a target oligonucleotide, and comprises a sequence obases having the reverse complement of a hybridising portion of the target oligonucleotide. The matrix is used for affinity purification synthetic oligonucleotides, specifically antisense agents, for treatments of hyperproliferative diseases, for treating a non-pathogen,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           line RS11846. The oligonucleotides are phosphodiesters targeted against the translation initiation site (AAQB8650-55) or the 5'-cregion (AAQB6656-58) of human bcl-2 pre-mRNAs. The AAQB6656 oligonucleotide provided pronounced DNA fragmentation.
                     non-hyperproliferative disease, e.g. Alzheimer's, for modulating expression of cell surface proteins, and to inhibit a eukaryotic
                                                                                                                 method of the invention. The specification describes a matr
comprises a support and an affinity unit that specifically
                                                                                                                                                                     Disclosure;
                                                                                                                                                                                                                                                   WPI; 1998-362922/31
                                                                                                                                                                                                                                                                                                                                                                                                           WO9827425-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Anti-code oligomers which bind to bcl-2 mRNA of human solid tumours, esp. breast cancer % \left( 1\right) =2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI;
                                                                                                                                           AAV28155-268
                                                                                                                                                                                                                                                                               Chen
                                                                                                                                                                                                                                                                                                      (ISIS-)
                                                                                                                                                                                                                                                                                                                                19-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                          18-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                    25-JUN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                              affinity purification;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Purification;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Antisense oligonucleotide to bcl-2 mRNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAV28178 standard; DNA; 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 15 BP; 1 A; 5 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Antisense oligonucleotides were tested for their ability to induce programmed cell death (DNA fragmentation) in the human lymphoma cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 12; Page 33; 108pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ц
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 gcggcggcagcgcgg 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15; Conserv
                                                                                                                                                                                                                                                                                                      ISIS
                                                                                                                                                                                                                                                                             Cole
             retrovirus
                                                                                                                                                                    Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                           represent oligonucleotides which can be purified using e invention. The specification describes a matrix that
                                                                                                                                                                                                                                                                                                      PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                            DL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          oligonucleotide; matrix; affinity unit;
                                                                                                                                                                                                                                                                                                                                96US-0769951
                                                                                                                                                                                                                                                                                                                                                        97WO-US23284
                                                                                                                                                                      83;
                                                                                                                                                                                                                                                                            Srivatsa GS;
             or
C
                                                                                                                                                                  183pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                antisense; bcl-2;
            other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.3e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              SS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the treatment
                                                                                                                                                                                                                         useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                        for,
                                                              treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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                                                                                                                                           the
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RESULT
AAX23690
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                               proliferation, and being active against a eukaryotic pathogen, a human retrovirus, a human immunodeficiency virus (HIV), or a non-human retrovirus, including influenza virus, Epstein-Barr virus, Respiratory
                                                                                                                                                                                           hybridize with the probe oligonucleotides of the sensor arrays. Such oligonucleotides and their targets are represented in AAX23548-X23709 oligonucleotides characterized by the method form pharmaceutical
                                                                                                                                                                                                                                                                      sensor arrays, where each array comprises a unique probe oligonucleotide, which is the reverse complement of part of a unique target oligonucleotide present in a mixture of target deletion sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chen
                                                                        Syncytial virus or cytomegalovirus (CMV). The compositions enable characterization of deletion sequence oligonucleotides having related, but different nucleobase sequences, and quantification of different species of deletion sequence ("target") oligonucleotides in a mixture.
                                                                                                                                                                                                                                          oligonucleotides. The compositions form a method for characterizing a sample of target deletion oligonucleotides which are labelled and % \left( 1\right) =\left\{ 1\right\} 
                                                                                                                                                                                                                                                                                                                                                                                              New compositions comprising oligonucleotides - useful 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Deletion sequence oligonucleotide; sensor array; eukaryotic pathogen; probe; cellular adhesion modulator; cellular proliferation modulator; human retrovirus; human immunodeficiency virus; non-human retrovirus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 15
                                          Also, if the spe
for its reverse
                                                                                                                                                                                compositions that are useful for modulating cellular adhesion or
                                                                                                                                                                                                                                                                                                                    This invention
                                                                                                                                                                                                                                                                                                                                                Example 9; Page 151; 163pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-SEP-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAX23690 standard;
                                                                                                                                                                                                                                                                                                                                                                                deletion oligonucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (ISIS-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9911820-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Deletion sequence oligonucleotide 143.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-JUN-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 gcggcggcagcgcgg
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ω
                                                                                                                                                                                                                                                                                                                                                                                                                                            1999-205198/17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gcggcggcagcgcgg
                            oligodeoxynucleotides.
                                            if the specificity of the oligonucleotide's nucleobase sequence ts reverse complement is not modified, the method may be performed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                      describes a novel composition comprising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97US-0923771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98WO-US18084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Α,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA;
                                                                                                                                                                                                                                                                                                                                                                                            mprising sensor arrays made up of unique probe useful for characterizing a sample of target
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7.3e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19;
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                                                                                                                                                                                                                                                                                                                    a number of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
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                                                                                                                                                           used: (1) to treat or prevent any disease or disorder that can be created with the nucleic acid, e.g. cancer, Alzheimer's disease, ce beta-thalassemia, malaria, viral infections (Including human immune ce deficiency virus (HIV)), inflammation, in human or animal medicine; (11) to investigate the role of a gene product in non-human canimals; and (111) to modulate gene expression in cells, tissues or creams. The compositions provide bioavailability of at least 15, preferably 17-35,%. The penetration enhancer improves: (1) transport of the nucleic acid across the mucosa of the alimentary canal and into cells; and (11) increases stability of the nucleic acid. Oral administration avoids the complications and expense of intravenous or other methods of administration. AAX18659 to AAX18799 and AAX18801 represent antisense oligonucleotides which can be used as the nucleic acid in the method of the invention.
                                                                         Query Match
Best Local
                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Composition comprising nucleic acid and penetration enhancer - used particularly for delivering therapeutic antisense oligonucleotides across the gastrointestinal mucosa, provides high bioavailability
                                                                                                                                                                                                                                                                                                                                                                         nucleic acid and at least one penetration enhancer.
                                                                                                                                                                                                                                                                                                                                                                                         A pharmaceutical composition has been developed which comprises a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       alimentary canal; transport; gastrointestinal mucosa; cancer; Alzheimer's disease; beta-thalassemia; malaria; viral infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cellular adhesion
                                                                                                                                   Sequence 15 BP; 1 A; 5
                                                                                                                                                                                                                                                                                                                                                                                                                        Example 2; Page 86; 115pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1999-106077/09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hardee G, Teng C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-JUL-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (ISIS-) ISIS PHARM INC
                                                          Local Similarity hes 15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             inflammation; ss.
gcggcggcagcgcgg
              gcggcggcagcgcgg 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gcggcggcagcgcgg 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antisense oligonucleotide #31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein; proliferation; antisense oligonucleotide;
                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                  C; 9 G; 0 U; 0 other;
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                                                                      Score 15; DB 20;
Pred. No. 7.3e+02;
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Pred. No. 7.3e+02;
                                                          Mismatches
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                                                           0
                                                                                    Length 15;
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                                                          Indels
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                                                                                                                                                                                                                                                                                                                                                                          The compositions
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                                                          Gaps
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QУ

1 gcggcggcagcgcgg 15 GCAGCGGCAGCGCGG

Matches

14;

Conservative

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Mismatches

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RESULT 5
AAF45301/c
                                                                       Best Local
                 Query Match
                                                                                                                      of skin disorders. The method comprises contacting the skin with an antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1 receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of inhibiting or reducing growth factor mediated cell proliferation, oligonucleotide which can be used to design the antisense oligonucleotide which can be used to design the antisense oligonucleotide of the present invention (see AAF45151 and AAF45153-F45161). The method is useful for amellorating the effects of psoriasis, ichthyosis, pityriasis, ruba, pilaris, serbornhoea, keloids, keratosis, neoplasias, scleroderma, warts, benign growths, cancers of the skin, a hyperneovascular condition such as a neovascular condition of the retina, brain or skin, growth factor-mediated malignancies, other sclerotic disease, kidney disease, hyperproliferation of the inside of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic; cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid; skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis; IGF binding protein; IGFBP-2; IGFBP3; Inflammation; psoriasis; pilaris; growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ameliorating the effects of a disorder, e.g. psoriasis, by administering UV (ultra-violet) treatment (optional) and an antisense nucleic acid that inhibits or reduces growth factor mediated cell
                                                                     Sequence 15
                                                                                                                                                                                                                                                                                                                                                                        The present invention relates to a method for ameliorating the effects
                                                                                                                                                                                                                                                                                                                                                                                                         Example 6; Page 35; 201pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                proliferation and/or inflammation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-041421/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wraight CJ, Werther GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-JUN-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              neovascular condition of the retina; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
hyperneovascular condition; hyperplasia; kidney disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAF45301;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAF45301 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (MURD-) MURDOCH CHILDRENS RES INST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IGFBP2 oligonucleotide #140
                                                                                                            vessels or any other hyperplasia.
 Similarity
                                                                       BP; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99US-0140345
                                                                       Α,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA;
89.3%;
93.3%;
                                                                       8 C; 5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Edmondson SR;
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                                                                       G.
               Score 13.4;
 Pred. No. 3.6e+03;
                                                                       2 T;
                                                                       0 other;
                 DB 22;
                 Length
                   15;
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AAF81441/c
ID AAF814
XX
AC AAF814
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DT 08-JUN
XX
DE PCR pr
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                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This invention describes a novel nucleic acid molecule (I), useful as a probe and/or primer for detecting bacteria. The invention also describes (I) a combination of at least two nucleic acids (II) for detecting bacteria or phylogenetic groups of bacteria, particularly enterobacteria; (2) a kit containing (I) or the combination of (II); (3) detecting bacteria (particularly enterobacteria) in a sample by contacting the sample with (I) or the combination of (II) and detecting hybridization; and (4) amplifying (MI) bacterial DNA from many different taxonomic groups using (I) or the combination of (II) as primers. The method is used to detect and identify bacteria, for clinical diagnosis and for detecting contamination of food. (I) can detect bacteria at various
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Detection; spacer; 23S rD
enterobacterium; clinical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bacterial 23S/5S RNA detecting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAH49944;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAH49944 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                        regions, and the intermediate transcribed spacer, contain some sequences that are highly conserved and others that are highly variable. AAH49807-AAH50411 represent primers used to illustrate the method of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 17; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New nucleic acid primers and probes, useful for bacterial detection, clinical diagnosis and detecting food contamination, comprises 23S and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Grabowski R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-APR-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DE19945916-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Erwinia chrysanthemi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-AUG-2001
    PCR primer GSP2
                                            08-JUN-2001
                                                                                 AAF81441;
                                                                                                                      AAF81441 standard; DNA; 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 levels of selectivity (e.g.. all bacteria, particular classes, families, genera or species). The method exploits the fact that the 23S and 5S rDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (BIOT-) BIOTECON DIAGNOSTICS GMBH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24-SEP-1999;
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                                                                                                                                                                                                                                                                                                                      Local Similarity
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                                                                                                                                                                                                                                                            \vdash
                                                                                                                                                                                                                                          gcggcggcagcgcgg 15
                                                                                                                                                                                                                      gcggcggtagcgcgg
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                                                                                                                                                                                                                                                                                                                                                                                                 BP; 3
                                                                                                                                                                                                                                                                                                     Conservative
                                          (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               63; 140pp; German
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99DE-1045916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99DE-1045916
  for corn promoter clone
                                                                                                                                                                                                                                                                                                                                                                                                 A.
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                                                                                                                                                                                                                                                                                                                      89.3%;
93.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                 14 G;
                                                                                                                        ВP
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                                                                                                                                                                                                                                                                                                                      Score 13.4; DB 22
Pred. No. 3.3e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          primer
                                                                                                                                                                                                                                                                                                       Mismatches
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food contamination; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID
                                                                                                                                                                                                                                                                                                                                          DB 22;
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                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                     Indels
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    AALZ9213
ID AALZ
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AC AALZ
AC AALZ
DT 24-d
XX Immu
DE Huma
XX Immu
KW Immu
KW cyc.
KW cyc.
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Query Match
Best Local S
Matches 14
                                                                                                                                                                                                              The present invention relates to novel corn promoter sequences (see AAR81456-AAR81478). The promoter sequences are useful for conferring expression of a second polynucleotide molecule in a transgenic plant tissue. In addition, the promoter sequences are useful for providing plants with herbicide resistance. The promoter sequences are suitable for selectively modulating expression of any operatively linked gene and provide additional regulatory element diversity in a plant expression vector in gene stacking approaches. The present sequence is a PCR primer used in the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Corn; promoter; transgenic plant; herbicide resistance; PCR primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zea mays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Anderson
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                                                                                                                                                                             Sequence 40
                                                                                                                                                                                                                                                                                                                                                                                                                   Example 3; Page 87; 101pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel promoter nucleic acid sequences useful for regulating heterologous gene expression in plants, comprising regulato
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (MONS ) MONSANTO CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      heterologous gene expression
located upstream to plant DNJ
26
                                     \vdash
                    gcggcggcagcgcgg 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001-244796/25
GCGGCGGCACCGCGG
                                                                            l Similarity
14; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ,MH
                                                                                                                                                                             BP;
                                                                            Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chay CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0154182
                                                                                                                                                                             3 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          plant DNA structural coding sequences
                                                                                                                                                                             17 C;
  12
                                                                                                 89.3%;
93.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chen
                                                                                                                                                                               13
                                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ġ
                                                                                                 Score 13.4;
Pred. No. 3
                                                                                                                                                                             G;
                                                                              Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               comprising regulatory sequences
                                                                                                                                                                                 other;
                                                                                                 DB 22;
.3e+03;
                                                                                                                   Length
                                                                                                                       40;
                                                                                0;
                                                                                Gaps
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RESULT
                                AAL29213 standard;
24-JAN-2002
                                                 œ
(first entry)
                                DNA;
                                 51
                                 ВP
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neuroprotective; antimicrobial; gene therapy; vaccine; amylase; cancer; amyloid protein; angiopoietin; apoptosis related protein; cadherin; cyclin; polymerase; oncogene; histone; kinase; colony stimulating factor; complement related protein; cytochrome; kinesin; cytokine; interferon;

interleukin; G-protein coupled receptor; thioesterase; inflammation; multifactorial disease; autoimmune disease; infection;

multifactorial

system

disease;

SS

28-DEC-2000; 2000WO-US35498

05-JUL-2001 WO200147944-A2 Homo sapiens. nervous Human SNP oligonucleotide #2421.

Immunosuppressive;

immunostimulatory;

antiinflammatory; cytostatic;

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RESULT
AAI68077,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
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             28-APR-2000;
14-SEP-2000;
21-DEC-2000;
03-APR-2001;
                                                                                                                                                                                                            Cystobacterineae; recombinant; polyketide synthase; PKS; polyketide; epothilone; pilA gene; cytostatic; antipsoriatic; antiarthritic; antiarteriosclerotic; antiinflammatory; neuroprotective; vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      by them may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate expression of the proteins listed above. Disorders that may be prevented, diagnosed and/or treated include multifactorial diseases with a genetic component, such as autoimmune diseases (e.g. rheumatoid arrhritis, multiple sclerosis, diabetes, systemic lupus erythromatosus and Grave's disease), inflammation, cancer (e.g. cancers of the bladder, brain, breast, colon and kidney, leukaemia), diseases of the nervous system and an infection of pathogenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention relates to oligonucleotides encoding polymorphic variants of proteins related to amylases, amyloid proteins, angiopoietin, apoptosis related proteins, cadherin, cyclin, polymerase, oncogenes, histones, kinases, colony stimulating factors, complement related proteins, cytochromes, kinesins, cytokines, interferons, interleukins, G-protein coupled receptors and thioesterases. The present sequence is one such oligonucleotide. The oligonucleotides and the peptides encoded
                                                                                                                  08-NOV-2001
                                                                                                                                                                                                                                                                     6-desmethyl-epothilone analogue constructing primer TL16
                                                                                                                                                                                                                                                                                                     13-MAR-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                              AAI68077 standard; DNA;
                                                                                     26-APR-2001; 2001WO-US13793.
                                                                                                                                             WO200183800-A2
                                                                                                                                                                          Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 2076; 4143pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Polymorphic nucleic acids encoding e.g. amylases, cyclins, polymerases, oncogenes and histones, useful for diagnosing and treating, e.g. cancer, autoimmune diseases and infections -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cancer, autoimmune diseases and infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Shimkets RA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-DEC-1999; 99US-0173419
27-DEC-2000; 2000US-0173419
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 gcggcggcagcgcgg
                                                                                                                                                                                                     primer;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   51 BP;
                                                                                                                                                                                                      SS
2000US-257517P.
2001US-0825856.
2001US-0825876.
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                                          2000US-0560367.
2000US-232696P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  other;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of pathogenic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cell with a diketide equivalent compound of a specified formula. The host cells produces polyketides at high levels and are used in the production of not only epothilones, including new epothilone derivatives, but also other polyketides. Methods of purifying the epothilone derivatives are also useful for treating cancer, hyperproliferative diseases and conditions such as psoriasis, inflammation, sarcomas, neoplasms, lymphomas, multiple sclerosis, rheumatoid arthritis, atherosclerosis and for production of products of recombinant PKS genes and modification enzymes. The present sequence represents a PCR primer used in the production of 6-desmethyl-epothilone analogues.
                                                                                                                                                                                                                                                                                                                                                 Polymorphism; hypertension; agammaglobulinemia; diabetes insipidus; Lesch-Nyhan syndrome; muscular dystrophy; Wiskott-Aldrich syndrome; Fabrys disease; familial hypercholesterolemia; hereditary spherocytosis; polycystic kidney disease; von Willebrands disease; forensic; human; tuberous sclerosis; hereditary hemorrhagica telangiectasia; familial colonic polyposis; osteogenesis imperfecta; porphyria;
                       07-MAY-1998;
03-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention provides a recombinant host cell, of the suborder Cystobacterineae comprising a recombinant expression vector encoding a heterologous polyketide synthase (PKS) gene and produces a polyketide synthesized by the PKS enzyme encoded on the vector. An epothilone derivative of a specified formula can be produced by culturing the host
                                                                                                       07-MAY-1999;
                                                                                                                                                              10-NOV-1999
                                                                                                                                                                                                                  EP955382-A2
                                                                                                                                                                                                                                                                                                                            Ehlers-Danlos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAA03805 standard;
                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAA03805;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 11; Page 170; 221pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Recombinant host cells useful for producing polyketides e.g. epothilone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lau
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (KOSA-) KOSAN BIOSCIENCES INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13-APR-2001; 2001US-269020P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24
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13; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         fragment of hypertension associated gene AADD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP; 4 A; 10 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                         nic polyposis; osteogenesis syndrome; ss.
                         9905-0304232
                                                   98US-0084641
                                                                                                       99EP-0250150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ashley
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 13;
Pred. No.
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5e+03;
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RESULT 11
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ID AAF453
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XX AAF453
AC AAF453
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DT 30-MAR
DT 30-MAR
XX
ANTISE
KW ANTISE
KW Cytost
KW GYTOST
KW GTOWTH
KW GTOWTH
KW HOPOETN
KW NEFATC
KW NEFATC
KW NEFATC
KW HOPOETN
KW NO2000
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PN WO2000
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PPD 28-DEC
XX
PFF 21-JUN
XX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention provides polymorphic fragments of genes associated with the prevention. The nucleic acids including the polymorphic sites can be used as probes or primers for expressing variant proteins. Detection of the polymorphisms is useful in designing prophylactic and therapeutic regimes customized to underlying abnormalities. The polymorphisms can be used for association studies for hypertension, and in hypertension of diagnostic assays. Where the polymorphisms have strong correlation with hypertension, within a gene, they are likely to have a causative role in hypertension. This information can be used to find the precise role of a polymorphism in the disease, and this can be used to identify potential drugs which combat the disease. The polymorphisms can be tested for association with other diseases e.g. agammaglobulinemia, diabetes insipidus, Lesch-Nyhan syndrome, muscular dystrophy, Wiskott-Aldrich syndrome, Fabrys disease, familial hypercholesterolemia, diabetes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query
Best L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    kidney disease, hereditary spherocytosis, von Willebrands disease, tuberous sclerosis, hereditary hemorrhagica telangiectasia, familial colonic polyposis, Ehlers-Danlos syndrome, osteogenesis imperfecta, acute intermittent porphyria. The polymorphic forms can also be used forensics to identify individuals.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 16; 53pp; English.
                                                                                                                                                                                                                                                                                   Antisense therapy; antiproliferative; antinflammatory; antipsoriatic; cytostatic; dermatological; cardiant; virucide; ophthalmological; kelostatic; dermatological; cardiant; virucide; for the skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasi IGF binding protein; IGFBP-2; IGFBP3; inflammation; psoriasis; pilaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        hypertension
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 29
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                   21-JUN-1999;
                                                       21-JUN-2000; 2000WO-AU00693
                                                                                               28-DEC-2000
                                                                                                                                  WO200078341-A1
                                                                                                                                                                                                              neovascular condition of the retina; ss.
                                                                                                                                                                                                                                keratosis; neoplasia; scleroderma; wart;
hyperneovascular condition; hyperplasia;
                                                                                                                                                                                                                                                  growth factor mediated cell proliferation; ichthyosis; serborrhoea; ruba;
keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic disease;
                                                                                                                                                                                                                                                                                                                                                                                   IGFBP2 oligonucleotide #139
                                                                                                                                                                                                                                                                                                                                                                                                                        30-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAF45300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAF45300 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
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                                                                                                                                                                        sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        l Similarity
13; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             UNIV CASE WESTERN RESERVE.
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                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                     99US-0140345
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; DB 21;
. 5e+03;
                                                                                                                                                                                                                                kidney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 29
                                                                                                                                                                                                                                    disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           esis imperfecta, and can also be used in
                                                                                                                                                                                                                                                                                     psoriasis; pilaris;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                           pityriasis;
                                                                                                                                                                                                                                                                                                                                 keloid;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
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Wraight CJ,

Werther GA,

SR;

(MURD-) MURDOCH CHILDRENS RES INST.

21-JUN-1999;

99US-0140345

21-JUN-2000; 2000WO-AU00693

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         oligonuclectides of the present invention (see AAF45151 and AAF45153-F45161). The method is useful for ameliorating the effects of psoriasis, ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis, neoplasias, scleroderma, warts, benign growths, cancers of the skin, a hyperneovascular condition such as a neovascular condition of the retina, brain or skin, growth factor-mediated malignancies, other sclerotic disease, kidney disease, hyperproliferation of the inside of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to a method for ameliorating the effects of skin disorders. The method comprises contacting the skin with an antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1 receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of inhibiting or reducing growth factor mediated cell proliferation, inflammation and/or other disorders. The present sequence is an oligonucleotide which can be used to design the antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 6; Page 35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      proliferation and/or inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ameliorating the effects of a disorder, e.g. psoriasis, by administering UV (ultra-violet) treatment (optional) and an antis nucleic acid that inhibits or reduces growth factor mediated cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          blood vessels or any other hyperplasia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wraight CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (MURD-) MURDOCH CHILDRENS RES
                                                                                                                                                                                                                                         keratosis; neoplasia; scleroderma; wart; skin cancer; sclerotic hyperneovascular condition; hyperplasia; kidney disease; neovascular condition of the retina; ss.
                                                                                                                                                                                                                                                                                                                        Antisense therapy; antiproliferative; antiinflammatory; antipsoriatic; cytostatic; dermatological; cardiant; virucide; ophthalmological; keloid; skin disorder; Insulin-like Growth Factor 1 receptor; IGF-1; pityriasis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAF45302 standard; DNA; 15 BP
                                                                                                                                                                                                                                                                                         IGF binding protein; IGFBP-2; IGFBP3; inflammation;
growth factor mediated cell proliferation; ichthyos:
                                                                                                                                                                                                                                                                                                                                                                                                                                  30-MAR-2001
                                                                                                                                      28-DEC-2000
                                                                                                                                                                      WO200078341-A1
                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                IGFBP2 oligonucleotide #141.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15 CAGCGGCAGCGCGG 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 cggcggcagcgcgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BP; 0 A; 8 C; 5 G; 2 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Werther GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      201pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         82.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Edmondson SR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 12.4;
Pred. No. 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 22;
                                                                                                                                                                                                                                                                                             ichthyosis; serborrhoea; ruba
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                               psoriasis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                 pilaris;
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Best Local
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DNA encoding the Helicoverpa armigera granulo:virus enhancin protein
                                                                                                                                           Granados
                                                                            WPI; 1997-179177/16.
                                                                                                                                                                                                                                                              23-AUG-1996;
24-AUG-1995;
                                                                                                                                                                                                                                                                                                                                                       23-AUG-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                   06-MAR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Enhancin; hybridisation; granulovirus; Trichoplusia ni; insect; midgut;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         inflammation and/or other disorders. The present sequence is an oligonucleotide which can be used to design the antisense oligonucleotides of the present invention (see AAF45151 and AAF45153-F45161). The method is useful for ameliorating the effects of psorlasis, ichthyosis, pityriasis, ruba, pilaris, serborrhoea, keloids, keratosis, neoplasias, scleroderma, warts, benign growths, cancers of the skin, a hyperneovascular condition such as a neovascular condition of the retina, brain or skin, growth factor mediated malignancies, other sclerotic disease, kidney disease, hyperproliferation of the inside of
                                                                                                                                                                                                 (BOYC-) BOYCE THOMPSON INST PLANT RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO9708197-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 H. armigera granulovirus enhancin primer HAZR2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     promoter; extension
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-JAN-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAT79100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAT79100 standard; DNA; 16 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Helicoverpa armigera granulovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    insect; absorption;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       open
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 15 BP; 0 A; 8 C; 5 G; 2 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         blood vessels or any other hyperplasia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention relates to a method for ameliorating the effects of skin disorders. The method comprises contacting the skin with an antisense oligonucleotide, (for Insulin-like Growth Factor [IGF]-1 receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ameliorating the effects of a disorder, e.g. psoriasis, by administering UV (ultra-violet) treatment (optional) and an antisense nucleic acid that inhibits or reduces growth factor mediated cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 6; Page 35; 201pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        proliferation and/or inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             receptor, IGF binding protein [IGFBP]-2 or IGFBP3), which is capable of inhibiting or reducing growth factor mediated cell proliferation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-041421/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              reading
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 frame;
                                                                                                                                                                                                                                                              96US-0002743.
95US-0002743.
                                                                                                                                                                                                                                                                                                                                                       96WO-US13645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pseudaletia unipuncta; peritrophic membrane protein; penetration; baculovirus; mortality; pest control; analysis; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       82.7%;
92.9%;
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Pred. No. 9.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .6e+03;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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DDDDDDDDT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local :
                                    The invention is useful for inhibiting the expression of E2F transcription factor 1 in cells or tissues. The antisense oligonucleotides may also be used as a research agent and to
Sequence 20 BP; 1 A; 7 C; 12 G; 0 U; 0 other;
                                                                              The present invention relates to antisense compounds up to nucleobases in length targeted to a E2F transcription factor
                                                                                                                                                         Antisense compound capable of \hat{\mathbf{f}} inhibiting the expression of E2F transcription factor 1, useful for preventing or delaying infection,
                                                                                                                        Example 15; Column 42; 40pp; English.
                                                                                                                                                                                                             WPI; 2001-190981/19.
                                                                                                                                                                                                                                          Popoff I,
                                                                                                                                                                                                                                                                                            02-MAR-2000; 2000US-0517584
                            infection, inflammation or tumours.
                                                                                                                                                                                                                                                                   (ISIS-) ISIS PHARM INC
                                                                                                                                                                                                                                                                                                                          02-MAR-2000; 2000US-0517584
                                                                                                                                                      inflammation or tumor formation -
                                                                                                                                                                                                                                                                                                                                                      13-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                US6187587-B1
                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                       inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Antisense;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAF91298;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAF91298 standard; DNA; 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 16 BP; 3 A; 6 C; 7 G; 0 U; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                from the Helicoverpa armigera granulovirus (HearGV) enhancin gene (AAT79099). Enhancin proteins disrupt peritrophic membrane proteins insects so that absorption, penetration and/or uptake of baculovirus the midgut is increased, leading to higher mortality. They are used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      conjunction with a substance toxic to insects for pest control.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This is primer was used in a primer extension analysis of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        pests

    used to increase infectivity of baculovirus for control of insect

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 cggcggcagcgcgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3 cggcggcagcacgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          l Similarity
13; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            transcription factor 1 antisense oligonucleotide
                                                                                                                                                                                                                                      Brown-Driver VL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                 E2F transcription factor 1; human; infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Page 8; 36pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     82.7%;
92.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP.
                                                                                                                                                                                                                                      Cowsert LM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 12.4; DB 18 Pred. No. 9.6e+03;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 18;
                                      agent and to prevent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
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Query Match
Best Local Similarity

82.7**%**; 92.9**%**;

Score 12.4; DB 23 Pred. No. 9.4e+03;

DB 22;

Length Indels

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Gaps

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Conservative

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AAX25256
search completed: June 28, 2002, 22:40:18 Job time: 8094\ \text{sec}
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                                                                                                                                                                                                                                                                                                                                                                     Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This primer is one of a primer pair (see also AAX25255) used for the PCR amplification of a cDNA clone (see AAX25215) coding for a caffeoyl-CoA 3-0-methyltransferase (see AAX25215) coding for CM45. The invention provides methods and compositions relating to altering lignin biosynthesis and/or the lignin composition of plants. Isolated nucleic acids (see AAX25196-216) that code for proteins (see AAX25157-77) involved in lignin biosynthesis are claimed. They are used to transform a plant (especially maize or sorghum) to modulate lignin biosynthesis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Maize; corn; caffeoyl-CoA 3-0-methyltransferase; lignin; transgenic plant; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAX25256 standard; DNA; 25 BP.
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used to transform plants to modulate lignin biosynthesis % \left( 1\right) =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\} =\left\{ 1\right\}
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27-AUG-1997;
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92.9%;
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Pred. No. 9.2e+03;
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Listing first 45 summaries
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     seq length:
seq length:
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1: /cgn2_6/ptodata/1,

2: /cgn2_6/ptodata/1,

3: /cgn2_6/ptodata/1,

4: /cgn2_6/ptodata/1,

5: /cgn2_6/ptodata/1,

6: /cgn2_6/ptodata/1,
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Copyright (c) 1993 - 2000 Comp
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/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/BCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/backfiles1.seq:*
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      396
  US-08-465-485A-14
US-08-465-485A-28
US-09-080-285-28
US-09-517-594A-13
US-08-477-527A-57
US-08-481-710-37
PCT-US96-09-537-37
US-08-556-978B-54
US-08-556-978B-54
US-08-51-1156C-43
US-08-51-1156C-43
US-08-51-1156C-43
US-08-318-113-3-32
US-08-318-113-3-32
US-08-914-91-1418-42
US-08-927-561-42
US-08-927-561-42
US-08-442-248-7
US-08-442-248-7
US-08-442-248-7
US-08-446-449-7
US-08-446-449-7
US-08-466-449-7
US-08-326-119A-3
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Sequence 14, Appl
Sequence 28, Appl
Sequence 28, Appl
Sequence 37, Appl
Sequence 37, Appl
Sequence 37, Appl
Sequence 37, Appl
Sequence 54, Appl
Sequence 28, Appl
Sequence 28, Appl
Sequence 32, Appl
Sequence 32, Appl
Sequence 34, Appl
Sequence 34, Appl
Sequence 37, Appl
Sequence 42, Appl
Sequence 42, Appl
Sequence 42, Appl
Sequence 47, Appl
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Sequence 38, Appl	Sequence 37, Appl	Sequence 38, Appl	Sequence 37, Appl	Sequence 444, App	Sequence 23, Appl	•	Sequence 444, App	Sequence 444, App	Sequence 444, App	Sequence 3, Appli	Sequence 3, Appli	•	Sequence 18, Appl	Sequence 18, Appl	Sequence 45, Appl	Sequence 109, App	Sequence 109, App

#### ALIGNMENTS

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US-08-465-485A-14
US-08-465-485A-14
; Sequence 14, Application US/08465485A
; Patent No. 5831066
; GENERAL INFORMATION:
US-08-465-485A-14
                                                                                                                                                                                                                                                                                             FILING DATE: 20-SEP-1993
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 07/840,716
FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/288,692
FILING DATE: 22-DEC-1988
ATTORNEY/ACENT INFORMATION:
                                                                                                                                                             TELEFAX: (408) 436-2075 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/465,485A
FILING DATE: 05-JUN 1995
CLASSIFICATION: 514
                  TOPOLOGY: line MOLECULE TYPE: 1
                                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 15 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ZIP: 22202
COMPUTER READABLE FORM:
                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
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APPLICATION NUMBER: US 08/124,256
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STATE: Virginia
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GENERAL INFORMATION:
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Best Local
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                                                          Matches
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Best Local Similarity
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INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PS COMPATION SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 07
FILING DATE: 22-DEC-1988
ATTORNEY/AGENT INFORMATION:
NAME: FORTHEY, Andrew D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/124,256
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                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 21-FEB-1992 PRIOR APPLICATION DATA:
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GCGGCGGCAGCGCGG 15
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nucleic acid
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                                                          Conservative
                                                                                                                                                                              linear
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                                                                                                                                                              DNA (genomic)
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100.0%; F
tive 0;
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Pred. No. 2.8e+02;
0; Mismatches 0;
                                                                        Score 15; DB 3;
Pred. No. 2.8e+02;
                                                           Mismatches
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RESULT 3
US-08-465-485A-28
RESULT 4
US-09-080-285-28
; Sequence 28, Application US/09080285
; Patent No. 6040181
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                                                                                                                                                                          Matches
                                                                                                                                                                                          Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/465,485A FILING DATE: 05-JUN-1995 CLASSIFICATION: 514 PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: linear nucleic acid; DESCRIPTION: Synthetic DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 33
TELECOMMUNICATION INFORMATION:
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ATTORNEY/AGENT INFORMATION:
NAME: FORTINEY, Andrew D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 20-SEP-
PRIOR APPLICATION DATA:
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CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                     ANTI-SENSE:
                                                                                                                                                                                                                                                                               OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 08/124,256 FILING DATE: 20-SEP-1993
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LOCATION:
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                                                                                                                          1 gcggcggcagcgc 13
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Y: U.S.A.
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SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                          86.7%; Score 13; DB 2;
100.0%; Pred. No. 1.7e+03
tive 0; Mismatches 0
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                 GENERAL INFORMATION:
APPLICANT: Ian
                                               Sequence 13, Application US/09517584A Patent No. 6187587
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   APPLICANT: Vickie L.
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NAME/KRY: Modified_base
LOCATION: 18..19
OTHER INFORMATION: Last two internucl
OTHER INFORMATION: phosphorothioates
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US,
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DESCRIPTION:
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LENGTH: 20 base pairs
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FILING DATE: 21-FEB-1992
PRIOR APPLICATION DATA:
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CLASSIFICATION:
PRIOR APPLICATION DATA:
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ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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STRANDEDNESS: sing
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1755 S. Jefferson Davis Hwy., Suite 400
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SYSTEM: PC-DOS/MS-DOS
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Ian Popoff
ie L. Brown-Driver
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Synthetic DNA
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100.0%;
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Pred. No. 1.7e+03;
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US-08-477-527A-37
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SEQ ID NO 13
LENGTH: 20
TYPE: DNA
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Best Local Similarity
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APPLICANT: DIANE TASSET
APPLICANT: NIKOS PAGRATIS
APPLICANT: NIKOS PAGRATIS
FILE REFERENCE: RTS-0121
CURRENT APPLICATION NUMBER: US/09/517,584A
CURRENT FILING DATE: 2000-03-22
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TITLE OF INVENTION:
FILE REFERENCE:
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                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
FILING DATE: 10-JUNE
PRIOR APPLICATION DATA:
                                                                                                                                                              FILING DATE: 8-SEPTEMBER-1993 PRIOR APPLICATION DATA:
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                                                                                                              FILING DATE: 11-JUNE-199
ATTORNEY/AGENT INFORMATION:
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CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                          APPLICATION NUMBER: 07/964,67 FILING DATE: 21-OCTOBER-1992
                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 07/931,473
FILING DATE: 17-AUGUST-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM compatible OPERATING SYSTEM: MS-DOS
                                                                               NAME: Diane H. MCCleary
REGISTRATION NUMBER: 33
                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8400 East Prentice Avenue, Suite #200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LARRY GOLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUMEDHA JAYASENA
                                                                                                                                                                                                                                                                                                                                                                                                                            WordPerfect 6.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Swanson and Bratschun, L.L.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Diskette,
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                                                                                                                                 11-JUNE-1990
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92.9%;
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                                                                                                                                                07/536,428
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3.50 inch, 1.44 Mb storage
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Pred. No. 3e+03;
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8028186
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Best Local Similarity 92.9%;
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TELEFAX: (303) 793-343
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                           REGISTRATION NUMBER: 33,960
REFERENCE/DOCKET NUMBER: NETELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                    FILING DATE: 17-AUGU PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/714,131
FILING DATE: 10-JUNE-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: HIGH ACCURATIONS OF CYTOKINES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: DIANE TASSET
APPLICANT: NIKOS PAGRATIS
APPLICANT: SUMEDHA JAYASENA
APPLICANT: LARRY GOLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                FILING DATE: 11-JUNE-1990 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                APPLICATION NUMBER: 08/117,99:
FILING DATE: 8-SEPTEMBER-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/536,428
                                                                                                                                                                                                                  FILING DATE: 21-OCTOBER-1992
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
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                               TELEPHONE:
                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/08/481,710
                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE:
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                                                                                                  Diane H. McClearn
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               (303) 793-3433
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                                 (303) 793-3333
                                                                                                                                                                                                                                                                                     UMBER: 07/931,473
17-AUGUST-1992
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N: 536
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                                                                                                                                                 07/536,428
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3.50 inch, 1.44 Mb storage
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                                                                  NEX41-2
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Pred. No. 2.5e+03;
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FEATURE:

OTHER INFORMATION:

OTHER INFORMATION:

PCT-US96-09537-37
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Best Local Similarity
Matches 13; Conserv
                                                                                                                                                                                                              APPLICATION NUMBER: 08/477,829
FILING DATE: 07-JUNE-1995
PRIOR APPLICATION DATA:
APPLICATION UMBER: 08/481,710
FILING DATE: 07-JUNE-1995
ATTORNEY/AGENT INFORMATION:
NAME: BAITY J. SWANSON
REGISTRATION NUMBER: 33,215
REGISTRATION NUMBER: NEX41/PI
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                      TELEFAX: (303) 793-34 INFORMATION FOR SEQ ID NO:
                                                                LENGTH: 70 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: RNA
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LENGTH: 70 base pairs
TYPE: nucleic acid
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SOFTWARE: WORDPERFECT 6.0
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Diskett
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OTHER INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
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NIKOS PAGRATIS
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                                                                                                                                                                                      (303)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUMEDHA JAYASENA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Diskette,
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                   All pyrimidines are 2'-NH2 modified
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3.50 inch, 1.44 Mb storage
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Pred. No. 2.5e+03;
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US-08-556-978B-54/c
; Sequence 54, Application US/08556978B
; Patent no. 6268169
; GENERAL INFORMATION:
APPLICANY: FAINESTOCK, STEPHEN F.
TITLE OF INVENTION: NOVEL RECOMBINANTLY PRODUCED
; TITLE OF INVENTION: SPIDER SILK ANALOGS
                                                                                                                                                                              B
                                                                                                                           RESULT 10
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Best Local
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SEQUENCE CHARACTERISTICS:
LENGTH: 75 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/077,60

FILING DATE: JUNE 15, 1993

ATTORNEY/AGENT INFORMATION:

NAME: FLOYD, LINDA AXAMETRY

REGISTRATION NUMBER: 33,692

REFERENCE/DOCKET NUMBER: CR-9

TELEPHONE: 302-892-8112

TELEPHONE: 302-773-0164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
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OPERATING SYSTEM: MICROSOFT WINDOWS 95
SOFTWARE: MICROSOFT WORD FOR WINDOWS 95
CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: NOVEL RECOMBINANTLY TITLE OF INVENTION: SPIDER SILK ANALOGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/556,978B FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET: 1007 MAK
CITY: WILMINTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: DISKETTE, 3.50 INCH
                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                    nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            E: E. I. DU PONT DE NEMOURS AND COMPANY 1007 MARKET STREET
                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         UNITED STATES OF AMERICA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FAHNESTOCK, STEPHEN F.
VENTION: NOVEL RECOMBINANTLY PRODUCED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                 DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                    single
                                                                                                                                                                                                                                                                82.7%;
92.9%;
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92.9%;
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                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CR-9389-A
                                                                                                                                                                                                                                            Score 12.4; DB 4;
Pred. No. 2.4e+03;
0; Mismatches 1;
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Pred. No. 2.5e+03;
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                                                                                                                                                                                                                                                                            Length 75;
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                                                                                                                                                                                                                                          0;
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                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 28 Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: Ralph, David
APPLICANT: An, Gang
APPLICANT: O'Hara, Mark S.
APPLICANT: Veltri, Robert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 302-773-0164 INFORMATION FOR SEQ ID NO:
                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS_MS-DOS
                                  SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 08/077,0 FILING DATE: JUNE 15, 193
ATTORNEY/AGENT INFORMATION:
NAME: FLOYD, LINDA AXAMETHY REGISTRATION NUMBER: 33,692
                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: DIAGNOSIS OF DISEASE STATE USING TITLE OF INVENTION: PROFILES IN PERIPHERAL LEUKOCYTES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: 1: MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 75 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETT
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ADDRESSEE: E. I. DU PONT DE NEMOURS AND COMPANY STREET: 1007 MARKET STREET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                   STREET:
CITY: F
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                    APPLICATION NUMBER: US/09/046,894
                                                                                                                                              COUNTRY: US
ZIP: 77210
                                                                                                                                                                                   STATE:
                                                                                                                                                                                                                                       ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 35 GCGGCGGCAGCGGG 22
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM: MICROSOFT WINDOWS 95
SOFTWARE: MICROSOFT WORD FOR WINDOWS 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: WILMINTON STATE: DELAWARE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE/DOCKET NUMBER: CR-9389-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE: 302-892-8112
TELEFAX: 302-773-0164
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o. 6190857
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13; Conserv
                                                                                                                                                                                                   Houston
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                                                                                                                                                                                Texas
                                                                                                                                                                                                                    E: Arnold, White & Durkee P.O. Box 4433
                                                                                                                                                               USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               E: DISKETTE, 3.50 INCH
Concurrently Herewith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA (genomic)
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                                                                                                                                                                                                                                                                                                             DIAGNOSIS OF DISEASE STATE USING MRNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                      Version #1.30
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RESULT 12
US-08-914-961-2/c
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INFORMATION FOR SEQ ID NO: 2
SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
TENGTH: 19 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2, Application US/08914961 Patent No. 6018042 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                        TELEFAX: (919) 541-8689
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER: P-42,023
REFERENCE/DOCKET NUMBER: UROC:014
TELECOMMUNICATION INFORMATION:
TELEPHONE: (512) 418-3000
TELEPAX: (512) 474-7577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 60/0 FILING DATE: 24-MAR-1997 ATTORNEY/AGENT INFORMATION: NAME: NAKAShima, Richard A.
                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: ASCII Editor CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/914,90 FILING DATE: 20-AUG-1997
                                                                                                                                               REGISTRATION NUMBER: 32,943
REFERENCE/DOCKET NUMBER: 4-20047/P1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (919) 541-8615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Mett, Helmut
APPLICANT: Haner, Rober
APPLICANT: Dean, Nichol
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 MOLECULE TYPE:
                                                                                                                                                                                                                       APPLICATION NUMBER: US 08/287,753
FILING DATE: 09-AUG-1994
ATTORNEY/AGENT INFORMATION:
NAME: SPEULIL, M. MULTBY
NAME: SPEULIL, M. MULTBY
                                                                                                                                                                                                                                                                                                      CLASSIFICATION: 514
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Antitumor Antisense Oligonucleotides NUMBER OF SEQUENCES: 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: 7 Skyline Drive CITY: Hawthorne STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: nucleic acid
STRANDEDNESS: single
                   TOPOLOGY:
                                     STRANDEDNESS: single
                                                      TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE:
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                                                                          20 base pairs
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Dean, Nicholas Mark
                   linear
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                                                                                                                                                                                                                                                                                                                                       20-AUG-1997
DNA (genomic)
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100.0%; Pred. No.
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4.4e+03;
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US-08-651-136C-43
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                                                                                                                                                                               TELEFAX: 212-878-9655
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 33,728
REFERENCE/DOCKET NUMBER: 436
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-867-0123
TELEFAX: 212-878-9655
JEORMATION FOR THE TELEFAX: 212-878-9655
JEORMATION FOR THE TELEFAX: 212-878-9655
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CORRESPONDENCE ADDRESS:
NO. 60016390 No. 6001639disk of No. 6001639th America, Inc.
                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
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MAP POSITION: -8
                                                                                                                                                                                                                                                                   CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Lambiris, Elias J.
REGISTRATION NUMBER: 33,7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Takagi, Shinobu
TITLE OF INVENTION: No. 6001639el Endoglucanases
NUMBER OF SEQUENCES: 109
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                                                      FEATURE:
                                                                       MOLECULE TYPE: cDNA
                                                                                                                                                                SEQUENCE CHARACTERISTICS:
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OTHER INFORMATION: /not OTHER INFORMATION: phos
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CITY: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17 GCGGCGGCAGCG 6
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                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/0
FILING DATE: 21-MAY-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE:
                NAME/KEY: CDS
LOCATION: 1...
                                                                                        TOPOLOGY:
                                                                                                         STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY: United States of America ZIP: 10174-6401
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                                                                                                                                           LENGTH:
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                                                                                                                        : 63 base pairs nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New York
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Lassen, Soren F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nielsen, Ruby
Ihara, Michiko
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kauppinen, Markus
                  1..63
                                                                                                                                                                                                                                                                                                                                                                                                 PatentIn Release #1.0, Version #1.30
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                                                                                          linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ruby I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "All nucleotides are
phosphorothioate type"
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Query Match Best Local Similarity

80.0%; 100.0%;

Score 12; Pred. No.

DB 3; Length 63; 3.6e+03;

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RESULT 15
US-09-593-323-34
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US-08-318-193-32
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US-08-318-193-32
; Sequence 32, Application US/08318193
; Patent No. 5641663
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Sequence 34, Application US/09593323 Patent No. 6265213 GENERAL INFORMATION:
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 73 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 07/224
ATTOREY/AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REFERENCE/DOCKET NUMBER: 1874
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)836-9300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
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TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                 MOLECULE TYPE: Other nucleic acid;
DESCRIPTION: Synthetic DNA oligonucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: GARVIN, Robert T. APPLICANT: MALEK, Lawrence T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
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                                                                                                                                                                               Local Similarity
les 12; Conserv
                                                                                                                                                                                                                                                                                                                                      TYPE: nucleic acid
STRANDEDNESS: single
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                                                                                                                                                                               Conservative
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100.0%; Pred. No. 3.5
tive 0; Mismatches
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OF BIOACTIVE HUMAN GRANULOCYTE MACROPHAGE COLONY
STINULATING FACTOR (GM-CSF) AND OTHER HETEROLOGOUS
PROTEINS FROM STREPTOMYCES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US 07/224,568
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Search completed: June 28, 2002, 22:16:51 Job time: 8277 sec
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                                                                                                                                                                                                                                                                                           ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic US-09-593-323-34
                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: 1
SEQ ID NO 34
LENGTH: 18
                                                                                                                                                                                Query Match 78.7
Best Local Similarity 86.7
Matches 13; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILE REFERENCE: DNAB-02921
CURRENT APPLICATION NUMBER: US/09/593,323
CURRENT FILING DATE: 200-06-13
PRIOR APPLICATION NUMBER: 09/344,300
PRIOR FILING DATE: 1999-06-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Morgan, Antony R.
APPLICANT: Severini, Alberto
TITLE OF INVENTION: Compositions a
TITLE OF INVENTION: of DNA-Binding
TITLE OF INVENTION: Transcription
FILE REFERENCE: DNAB-02921
                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                  ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
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                                                                                                                       1 gcggcggcagcgcgg 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Compositions and Methods for Determining the Activity of DNA-Binding Proteins and of Initiation of
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86.7%;
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Pred. No. 5.3e+03;
0; Mismatches 2
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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 75
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Perfect score:
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                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
   Score
Query
Match Length DB
                                                                                             June 28, 2002, 22:11:14; Search time 3762.88 Seconds (without alignments) 83.420 Million cell updates/sec
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Gapop 10.0 , Gapext 1.0
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13 S S S S S S S S S S S S S S S S S S S	AR052617 Sequence A35502 Sequence 43 AR080135 Sequence M82019 Ephedra twe M82279 Ephedra dis A48844 Sequence 2 AR053329 Sequence 8 A8025160 Sequence A8116381 Sequence A8116381 Sequence AR159674 Sequence AR159674 Sequence AR159674 Sequence 249925 H.sapiens m U91293 Homo sapien M82284 Duchesnea i

### ALIGNMENTS

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		0 +	9 9	4-0	2 a	BASE COUNT
			unknown"	/organism="unknown"	<u>`</u>	
				115	<u>.</u>	source
			alifiers	Location/Qualifiers	5	FEATURES
		7-1998;	15 03-NOV	5831066-A	Patent: US 5831066-A 15 03-NOV-1998;	JOURNAL
		ssion	gene expre	of bcl-2	Regulation of bcl-2 gene expression	TITLE
					Reed, J.C.	AUTHORS
				to 15)	1 (bases 1 to 15)	REFERENCE
				ď.	Unclassified.	
					Unknown.	ORGANISM
					Unknown.	SOURCE
					•	KEYWORDS
			81	GI:59759	AR052617.1 GI:5975981	VERSION
					AR052617	ACCESSION
		31066.	ent US 58:	from pat	Sequence 15 from patent US 5831066.	DEFINITION
r PAT 29-SEP-1999	linear	AND QC	15 bp		AR052617	LOCUS
						AR052617
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Query Match Best Local Similarity

100.0%;

Score 15; DB 6; Length 15; Pred: No. 1.1e+04;

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BASE COUNT
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SOURCE
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AR080135
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Sequence 43 from Patent W09323549.
A36502
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                                                                                                                                                                 Ploougastel, B., Thomas, G. and Zucman, J.

Nucleic acid corresponding to a gene of chromosome 22 involved in recurrent chromosomal translocations associated with the development of cancerous tumors, and nucleic acids of fusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent: WO 9323549-A 43 25-NOV-1993; CENTRE NAT RECH SCIENT (FR)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Aurias,A., Delattre,O., Desmaze,C., Melot,T., Peter,M., Plougastel,B., Thomas,G. and Zucman,J. NUCLEIC ACID CORRESPONDING TO A GENE OF CHROMOSOME 22 INVOLVED RECURRENT CHROMOSOMAL TRANSLOCATIONS ASSOCIATED WITH THE
                                                                                                                                         Patent: US 5968734-A 46 19-OCT-1999;
                                                                                                                                                                                                                         1 (bases 1 to 69)
Aurias,A., Delattre,O., Desmaze,C., Melot,T., Peter,M.,
                                                                                                                                                                                                                                                                     Unknown
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                                                                                                                                                                                                                                                        Unclassified.
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publication JP 8500964T 960206.
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/db_xref="taxon:9606"
17 c 28 g
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                                                                                   /organism="unknown"
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Pred. No. 4.1e+04;
Score 13.4; DB 6;
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                                                                                             1 (bases 1 to 21)
Hamby,R.K., Suh,Y.B., Bult,C.J., Kallersjo,M. and Zimmer,E.A.
Darwin's abominable mystery revisited: Ribosomal RNA insights into flowering plant evolution upublished (1991)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ann.
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2 (sites)
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Hamby, R.K., Suh, Y.B., Bult, C.J., Kallersjo, M. and Zimmer, E.A.
Darwin's abominable mystery revisited: Ribosomal RNA insights into
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                                       Integration of morphological and of angiosperms
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Eukaryota; Viridiplantae;
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4 of 5
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Spermatophyta; Gnetophyta; Gnetopsida; Ephedrales; Ephedraceae;
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Spermatophyta; Gnetophyta; Gnetopsida; Ephedrales; Ep
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                              Missouri Bot. Garden (1994) In press
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                                                        Electrochemical sensor containing an enzyme linked to binding molecules bound to a noble metal surface Patent: US 5834224-A 2 10-NOV-1998;
                                                                                                       1 (bases 1 to 18)
Ruger,P., Ambrosius,D., Schmidt,B., Sluka,P., Guder,H.-J. and
                                                                                                                                                                                                  Sequence 2 from patent US 5834224.
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Electrochemical sensor
Patent: EP 0698787-A 2 28-FEB-1996;
BOEHRINGER MANNHEIM GMBH (DE)
Other publication DE 4430023 960229.
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                                                                                                                                                       Whooping cough vaccine comprising a fimbria protein Patent: US 5798103-A 11 25-AUG-1998;
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AR025160
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Characterization of the immune response to a secondary encephalitogenic epitope of basic protein in Lewis rats. II. E rell receptor V beta expression predominates in spinal cord infiltrating T cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GenBank staff at the National Library of Medicine created this entry [NCBI gibbsq 86495] from the original journal article. This sequence comes from Table IV.

Location/Qualifiers
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92176627
1371786
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                                                                                                                                                                                                                                   Sequence 1504 from Patent AX116381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa;
Mammalia; Eutheria;
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                                                                                                                                                                       Homo sapiens
                                                          Genotyping reagents, kits and methods of Patent: WO 0129262-A 1504 26-APR-2001; Orchid BioSciences, Inc. (US)
                                                                                                       Mammalia; Eutheria; Primates; 1 (bases 1 to 51)
Picoult-Newburg, L. and Pohl, M.
                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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5 c 11 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /product="T cell receptor beta chain variable"
/protein_id="AAB21746.2"
/db_xref="GI:13242921"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /strain="Lewis"
/db_xref="taxon:10116"
/organism="Homo sapiens"
/db_xref="taxon:9606"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="This sequence comes from Table IV"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /gene="TCR Vbeta6/Jbeta2.3"
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                                          Location/Qualifiers
                                                                                                                                                                                                                      GI:14033323
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86.7%;
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Rodentia;
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Pred. No. 2.6e+05;
0; Mismatches 2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gene sequence and method for distinguishing cordyceps sinensis Patent: US 6251606-A 14 26-JUN-2001; Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AR159674 5 Sequence 14 from patent US
AR159674
                                                                                                                                                                  Submitted (23-JUN-1995) Silins S. L., Queensland Medical Research, EBV unit, The Bancroft Centre, Brisbane, Queensland, AUSTRALIA, 4029
2 (bases 1 to 57)
                                                                                                                                                                                                                                                                                                                                         Z49925.1 GI:887474
T ~~11 receptor; T o
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Hseu, R. and Chen, C
                                                                                                                                                                                                                                 Silins, S.L.
Direct Submission
                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1, (bases 1 to 57)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AR159674.1 GI:16222414
         3 (bases 1 to 57)
Burrows, S.R., Silins, S.L., Moss, D.J.,
                                                                                                        diversified by tolerance to a background major
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Argaet,V.P.
                                                                         The Journal of experimental
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Pred. No. 2.3e+05;
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                Khanna, R., Misko, I.S. and
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                                                                              1703-1715 (1995)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                             Direct Submission
Submitted (27-FEB-1997) Department of Medicine, University of
Frankfurt, Theodor-Stern Kai #7, Frankfurt 60590, Germany
                                                                                                                                                                                                                                                                                          The TCR-delta repertoire in human intestine undergoes characteristic changes during fetal to adult development J. Immunol. 158 (12), 5632-5641 (1997)
                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 69)
Holtmeier, W., Witthoft, T., Hennemann, A., Winter, H.S. and
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Holtmeier, W., Witthoeft, T., Hennemann, A., Harland, S.W. and
                                                                                                                                                                                                                                                                                   97334214
                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
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                                                                                                                                                                                                                                 Kagnoff, M.F
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                  /tissue_type="colon"
/dev_stage="six weeks old"
<1. .>69
/gene="TCRDV3J1"
                                                                                                     /organism="Homo sapiens"
/db_xref="taxon:9606"
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31. .36
37. .>38
                                                                    /clone="WS1911"
                                                                                        /chromosome="14"
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/tissue_type="blood"
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Rosidae; eurosids I; Rosales; Rosaceae; Rosoideae; Duchesnea.
1 (bases 1 to 21)
Hamby, R.K., Suh, Y.B., Bult, C.J., Kallersjo, M. and Zimmer, E.A.
Darwin's abominable mystery revisited: Ribosomal RNA insights into
                                                                                                                                                                                                                         Doyle, J.A., Donoghue, M.J. and Zimmer, E.A. Integration of morphological and ribosomal of angiosperms
Ann. Missouri Bot. Garden (1994) In press
                                                                                                                                                                                                                                                                                                  Unpublished (1991)
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/db_xref="taxon:13044"
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//note="rearranged; contains CDR3 domain, 11 amino acids
/calculation according to: Rock,E.
J.Exp.Med.179:323-328,1994)"
                                                                                                                                                                                                              Location/Qualifiers
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<1. .>69
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## ALIGNMENTS

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9 4 t	ers	3-NOV-1998;	expression				-						18 bp DNA linear par 29-cmp-1999		

Query Match 100.0%; Score 18; DB 6; Length 18; Best Local Similarity 100.0%; Pred. No. 88;

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Brown, L.R. and Xu,C.
Fluorescent dibenzazole derivatives and methods related thereto
Patent: US 6140051-A 1 31-OCT-2000;
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Krieg,A.M., Kline,J., Klinman,D. and Steinberg,A.D.
Immunostimulatory nucleic acid molecules
Patent: US 6207646-A 55 27-MAR-2001;
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Sequence 59 from patent US 6218371.
AR146347
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Krieg, A.M. and Weiner, G.
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Krieq, A.M. and Weiner, G.

Methods and products for stimulating the immune system using immunotherapeutic oligonucleotides and cytokines patent: US 6218371-A 104 17-APR-2001;
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Semple, S.C., Klimuk, S.K., Harasym, T., Hope, M.J., Ansell, S.M., Cullis, P., Scherrer, P. and Debeyer, D.
Charged therapeutic agents encapsulated in lipid particles containing four lipid components
Containing four lipid components
Patent: US 6287591-A 14 11-SEP-2001;
                                                                                                                                                                                                                                                                      Sequence 14 from patent US AR167448
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Krieg, A.M. and Kline, J.N.
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Sequence 4 from Patent W09933488.
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DALEMANS WILFRIED L J (BE); SMITHKLINE BEECHAM BIOLOG (BE); GERARD CATHERINE MARIE GHISLIA (BE)
                                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 18)
Dalemans, W.L. and Gerard, C.M.
                                                                                                                                                                                                                                                                                                                                                                      unidentified
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Patent: WO 9952549-A 2 21-OCT-1999;
SMITHKLINE BEECHAM BIOLOG (BE); FRIEDE MARTIN (BE); HERMAND
                                                                                                                                                                                                                                                                                                                       Vaccine
                                                                                                                                                                                                                                                                                                                                                          unclassified.
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/note="synthetic oligonucleotide"
8 c 4 g 4 t
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DALEMANS WILFRIED L J (BE); PRIEELS JEAN PAUL (BE);
BEECHAM BIOLOG (BE); LAFERRIERE CRAIG ANTONY JOSEPH
LOCATION/QUALIFIERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                artificial sequence.
1 (bases 1 to 18)
Dalemans,W.L., Prieels,J.P. and Laferriere,C.A.
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Sequence 2 from Patent WO0062800.
AX040169
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Sequence 2 from Patent W00062802.
                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
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SmithKline Beecham Biologicals s.a.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                  Friede, M., Garcon, N. and Hermand, P.
synthetic construct
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             synthetic construct
                                        AX040403.1 GI:11230215
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/db_xref="taxon:32630"
/note="This is a synthetic oliogonucleotide"
8 c 4 g 4 t
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/db_xref="taxon:9606"
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1 (bases 1 to 18)
Deschamps, M.
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Sequence 2 from Patent W00100231.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Patent: WO 0100231-A 2 04-JAN-2001; SMITHKLINE BEECHAM BIOLOGICALS S.A. (BE)
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1 (bases 1 to 18)
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Sequence 32 from Patent W00108707.
AX081353
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           Uhlmann, E., Greiner, B., Unger, E., Gothe, G. and Schwerdel, M. Conjugates and methods for the production thereof, and their use for transporting molecules via biological membranes Patent: WO 0108707-A 32 08-FEB-2001;
                                                                                          synthetic construct
                                                                                                       synthetic construct.
                                                                                                                                  AX081353.1 GI:13170195
Aventis Pharma Deutschland GmbH
                                                                 artificial sequence.
1 (bases 1 to 18)
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/db_xref="taxon:32630"
/note="Synthetic construct of CpG oligonucleotide"
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/db_xref="taxon:32630"
/note="oligonucleotide"
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